Calvert Cliffs Nuclear Power Plant Unit 3

Combined License Application

Part 10: Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) and ITAAC Closure

This COLA Part includes RCOLA generic text.
Site Specific Text is enclosed in braces:
{Site Specific Information}

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Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) and ITAAC Closure

Appendix A- Proposed Combined License Conditions

1. INSPECTIONS, TESTS, ANALYSES, AND ACCEPTANCE CRITERIA (ITAAC):

There are several ITAAC identified in the COL application. Once incorporated into the COL, regulations identify the requirements that must be met.

~~**Proposed License Condition:**~~

The ITAAC identified in the tables in Appendix B of Part 10 of the COL application are incorporated into this Combined License. After the Commission has made the finding required by 10 CFR 52.103(g), the ITAAC do not constitute regulatory requirements; except for specific ITAAC, which are the subject of a Section 103(a) hearing, their expiration will occur upon final Commission action in such proceeding.

2. COL ITEMS:

There are several COL items that can not be resolved prior to issuance of the Combined License. The referenced U.S. EPR FSAR and the COL application FSAR together: ~~have already~~ 1) justifiedy why each of these COL items can not be resolved before the COL is issued;, 2) provides sufficient information on these items to support the NRC licensing decision;, and 3) identifies an appropriate implementation milestone. Therefore, in accordance with the guidance in Regulatory Guide 1.206, Ssection C.III.4.3, the following Combined License Condition is proposed to address these COL items.

PROPOSED LICENSE CONDITION:

Each COL item identified below shall be completed by the identified implementation milestone through completion of the action identified.

COL Item 3.5-1 in Section 3.5.1.2

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall establish plant procedural controls to ~~shall~~ ensure that unsecured maintenance equipment, including that required for maintenance and that are undergoing maintenance, will be removed from containment prior to operation, moved to a location where it is not a potential hazard to SSCs important to safety, or seismically restrained to prevent it from becoming a missile. Prior to initial fuel load, this requirement shall be incorporated into a plant procedure that controls the conduct of maintenance.

COL Items 3.6-1 and 3.6-2 in Sections 3.6.1 and 3.6.2.1

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall perform a pipe break hazard analysis as part of the piping design. It is used to identify postulated break locations and layout changes, support, design, whip restraint design, and jet shield design. The final design for these activities shall be completed prior to fabrication and installation of the piping and connected components. The as-built reconciliation of the pipe break hazards analysis shall be completed prior to fuel load.

COL Item 3.6-4 in Section 3.6.2.5.1

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall provide the diagrams showing the final as-designed configurations, locations, and orientations of the pipe whip restraints in relation to break locations in each piping system prior to fabrication and installation of the piping system.

COL Item 3.6-3 in Section 3.6.3

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall confirm that the design Leak-Before-Break (LBB) analysis remains bounding for each piping system. A summary of the results of the actual as-built, plant-specific LBB analysis, including material properties of piping and welds, stress analyses, leakage detection capability, and degradation mechanisms will be provided prior to fuel load.

COL Item 3.9-1 in Section 3.9.2.4

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall submit the results from the vibration assessment program for the U.S. EPR Reactor Pressure Vessel internals, in accordance with Regulatory Guide 1.20.

COL Item 3.9-2 in Section 3.9.3

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall prepare the design specifications and design reports for ASME Class 1, 2, and 3 components that comply with and are certified to the requirements of Section III of the ASME Code. The design specifications shall be prepared prior to procurement of the components while the ASME code reports shall be prepared during as-built reconciliation of the systems and components conducted prior to fuel load.

COL Item 3.9-11 in Section 3.9.3.1

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall provide a summary of the maximum total stress, deformation (where applicable), and cumulative usage factor values for each of the component operating conditions for ASME Code Class 1 components. For those values that differ from the allowable limits by less than 10 percent, {Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall provide the contribution of each of the loading categories (e.g., seismic, pipe rupture, dead weight, pressure, and thermal) to the total stress for each maximum stress value identified in this range. This information shall be supplied prior to procurement of the ASME Code Class 1 components.

COL Item 3.9-5 in Section 3.9.3.1.1

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall route, during detailed design, Class 1, 2, or 3 piping not included in the U.S. EPR design certification in a manner so that it is not exposed to wind or tornadoes.

COL Items 3.9-3 and 3.9-4

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall:

- Confirm that thermal deflections do not create adverse conditions during hot functional testing.
- Examine the feedwater line welds after hot functional testing prior to fuel loading and at the first refueling outage, and will report the results of the inspections to the NRC, in accordance with NRC Bulletin 79-13.

COL Item 3.9-7 in Section 3.9.6

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall submit the ~~CCNPP Unit 3~~ Preservice Testing Programs and Inservice Testing Programs to the NRC prior to performing the tests and following the start of construction and prior to the anticipated date of commercial operation, respectively. The implementation milestones for these programs are provided in {CCNPP Unit 3} FSAR Table 13.4-1. These programs shall include the implementation milestones and applicable ASME OM Code and shall be consistent with the requirements in the latest edition and addenda of the OM Code incorporated by reference in 10 CFR 50.55a on the date 12 months before the date for initial fuel load.

COL Items 3.9-9 and 3.9-10 in Section 3.9.1.2

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall perform the required pipe stress and support analysis and shall utilize a piping analysis program based on the computer codes described in U.S. EPR FSAR Section 3.9.1 and U.S. EPR FSAR Appendix 3C.

COL Item 3.9-12 in Section 3.9.6.4

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall provide a table identifying the safety-related systems and components that use snubbers in their support systems, including the number of snubbers, type (hydraulic or mechanical), applicable standard, and function (shock, vibration, or dual-purpose snubber). For snubbers identified as either a dual-purpose or vibration arrester type, {Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall denote whether the snubber or component was evaluated for fatigue strength. Per ASME Section III, Subsection NF, the fatigue evaluation shall not be required for shock snubbers. This information shall be provided prior to installation of any of the snubbers.

COL Item 3.10-1 in Section 3.10.2

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall not use experience data to establish equipment qualification.

COL Item 3.10-2 in Section 3.10.4

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall create and maintain the Seismic Qualification Data Package (SQDP) file. This activity shall be initiated during the equipment selection and procurement phase. The SQDP file shall be maintained for the life of the plant.

COL Item 3.11-1 in Section 3.11

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall maintain the equipment qualification test results and qualification status file during the equipment selection, procurement phase and throughout the installed life in the plant.

COL Item 3.11-3 in Section 3.11.3

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall develop and submit the equipment qualification testing program, including milestones and completion dates, prior to installation of the applicable equipment.

COL Item 3.12-1 in Section 3.12.4.2

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall perform a review of the impact of contributing mass of supports on the piping analysis following the final support design to confirm that the mass of the support is no more than ten percent of the mass of the adjacent pipe span.

COL Item 3.12-2 in Section 3.12.4.3

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall use piping analysis programs listed in Section 5.1 of the referenced topical report (ANP-10264(NP)).

COL Item 3.13-1 in Section 3.13-1.2

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall submit the inservice inspection plan for ASME Class 1, Class 2, and Class 3 threaded fasteners to the NRC prior to performing the first inspection.

COL Item 5.2-3 in Section 5.2.4 and COL Item 6.6-1 in Section 6.6

The initial inservice inspection program for Class 1, 2 and 3 components shall incorporate the latest edition and addenda of the ASME Boiler and Pressure Vessel Code approved in 10 CFR 50.55a(b) on the date 12 months before initial fuel load.

COL Item 5.3-2 in Section 5.3.2.1

A plant-specific PTLRPressure and Temperature Limits Report shall be provided in accordance with {CCNPP Unit 3} Technical Specification 5.6.4, "Reactor Coolant System (RCS) PRESSURE AND TEMPERATURE LIMITS REPORT (PTLR)," and shall be based on the methodology provided in ANP-10283P.

COL Item 5.4-1 in Section 5.4.2.5.2.2

The Steam Generator Tube Inspection Program shall incorporate the latest edition and addenda of the ASME Boiler and Pressure Vessel Code approved in 10 CFR 50.55a(b) on the date 12 months before initial fuel load.

COL Item 6.1-1 in Section 6.1.1.1

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall review the fabrication and welding procedures and other QA methods of potential Engineered Safety Feature (ESF) component vendors to verify conformance with Regulatory Guides 1.4431 and 1.3144 prior to their selection as ESF component vendors. for CCNPP Unit 3.

COL Item 6.1-2 in Section 6.1.2

During component procurement, if components cannot be procured with Design Basis Accident (DBA)-qualified coatings applied by the component manufacturer, {Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall do one of the following: Procure the component as uncoated and apply a DBA-qualified coating system in accordance with 10 CFR 50, Appendix B, Criterion IX; Confirm that the DBA-unqualified coating is removed and that the component is recoated with DBA-qualified coatings in accordance with 10 CFR 50, Appendix B, Criterion IX; Add the quantity of DBA-unqualified coatings to a list that documents those DBA-unqualified coatings already existing within containment.

COL Item 6.4-2 in Section 6.4.3.2

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall provide written emergency planning and procedures for use in the event of a radiological or hazardous chemical release within or near the plant, and will provide training of control room personnel, prior to receipt of fuel onsite at {CCNPP Unit 3}.

COL Item 8.3-1 in Section 8.3.1.1.5

Prior to initial fuel load, {Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall establish procedures to monitor and maintain Emergency Diesel Generator reliability at

~~CCNPP Unit 3~~ to verify the selected reliability level goal of 0.95 is being achieved as intended by Regulatory Guide 1.155.

COL Item 10.2-2 in Section 10.2.3.1

Following procurement of the {CCNPP Unit 3} turbine generator, {Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall submit to the NRC the applicable material data for the turbine rotor.

COL Item 10.2-3 in Section 10.2.3.2

Following procurement of the {CCNPP Unit 3} turbine generator, {Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall submit to the NRC the applicable turbine disk rotor specimen test data, load-displacement data from the compact tension specimens and the fracture toughness properties to demonstrate that the associated information and data presented in the U.S. EPR FSAR is bounding.

COL Item 14.2-2 in Section 14.2.11

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall develop an initial plant test program that considers the five guidance components identified in FSAR Section 14.2.11 and shall provide copies of approved test procedures to the NRC at least 60 days prior to their scheduled performance date.

{COL Item 14.2-6 in Section 14.2.8.1

Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services, shall review the results from European predecessors concerning the new, unique, or novel EPR features such as those previously noted in U.S. EPR FSAR Subsection 14.2.8.1 and propose supplemental testing for the initial plant test program if necessary prior to performance of the initial plant test program. This information shall be shared with subsequent U.S. EPR COL applicants.}

COL Item 18.1-1 in Section 18.1

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall execute the NRC approved Human Factors Engineering program as described in U.S. EPR FSAR Section 18.1.

COL Item 18.12-1 in Section 18.12

Prior to initial fuel load, {Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall implement a Human Performance Monitoring Program similar to the one described in Section 18.12 of the U.S. EPR FSAR.

COL Item 19.1-9 in Section 19.1.2.2

As-designed and as-built information shall be reviewed, and walk-downs shall be performed, as necessary, to confirm that the assumptions used in the Probabilistic Risk Assessment (PRA), including PRA inputs to the Reliability Assurance Program and Severe Accident Mitigation Design Alternatives, remain valid with respect to internal events, internal flooding and fire events (routings and locations of pipe, cable and conduit), and Human Reliability Assurance (i.e., development of operating procedures, emergency operating procedures and severe accident management guidelines and training), external events including PRA-based seismic margins, high confidence, low probability of failure fragilities, and low power shutdown procedures. These activities shall be performed prior to initial fuel load.

COL Item 19.1-4 in Section 19.1.2.3

A peer review of the PRA relative to the ASME PRA Standard shall will be performed prior to use of the PRA to support risk-informed applications or before initial fuel load.

COL Item 19.1-5 in Section 19.1.2.4.1

The {CCNPP Unit 3} PRA shall be treated as a living document. A PRA Configuration Control Program shall be put in place to maintain (update) or upgrade the PRA, as defined in ASME Standard RA--Sc 2007 and as clarified by Regulatory Guide 1.200.

3. OPERATIONAL PROGRAM IMPLEMENTATION:

The provisions of the regulations address implementation milestones for some operational programs. The NRC will use license conditions to ensure implementation for those operational programs whose implementation is not addressed in the regulations. COL application FSAR Table 13.4-1 identifies several programs required by regulations that must be implemented by a milestone to be identified in a license condition.

PROPOSED LICENSE CONDITION:

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall implement the programs or portions of programs identified in FSAR Table 13.4-1 on or before the associated milestones in FSAR Table 13.4-1.

4. FIRE PROTECTION PROGRAM REVISIONS:

An implementation license condition approved in the Staff Requirements Memorandum (SRM) regarding SECY-05-0197 applies to the fire protection program.

PROPOSED LICENSE CONDITION:

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall implement and maintain in effect the provisions of the fire protection program as described in the Final Safety Analysis Report for the facility. The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

5. SECURITY PLAN REVISIONS:

An implementation license condition approved in the SRM regarding SECY-05-0197 applies to the security program.

PROPOSED LICENSE CONDITION:

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall fully implement and maintain in effect the provisions of the Security Plan, which consists of the physical security plan, security personnel training and qualification plan, and safeguards contingency plan, and all amendments made pursuant to the authority of 10 CFR 50.90, 50.54(p), 52.97, and Section [ ] of Appendix [ ] to Part 52 when nuclear fuel is first received onsite, and continuing until all nuclear fuel is permanently removed from the site.

6. OPERATIONAL PROGRAM READINESS:

The NRC inspection of operational programs will be the subject of the following license condition in accordance with SECY-05-0197.:

PROPOSED LICENSE CONDITION:

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall submit to the appropriate Director of the NRC, a schedule, no later than 12 months after issuance of the COL, that supports planning for and conduct of NRC inspections of operational programs listed in the operational program FSAR Table 13.4-1. The schedule shall be updated every 6 months until 12 months before scheduled fuel loading, and every month thereafter until either the operational programs in the FSAR table have been fully implemented or the plant has been placed in commercial service, whichever comes first.

7. STARTUP TESTING:

COL application FSAR Section 14.2 specifies certain startup tests that must be completed after fuel load. Operating licenses typically have included the following condition related to startup testing.

PROPOSED LICENSE CONDITION:

Any changes to the Initial Startup Test Program described in Chapter 14 of the FSAR made in accordance with the provisions of 10 CFR 50.59 or Section [ ] of Appendix [ ] to 10 CFR Part 52 shall be reported in accordance with 50.59(d) within one month of such change.

8. EMERGENCY ACTION LEVELS:

The {CCNPP Unit 3} Emergency Action Levels (EALs) and the associated Technical Bases Manual contains bracketed values requiring plant specific values to be provided that can not be determined until after the COL is issued. These bracketed values are associated with certain site specific values and detailed design information, such as setpoints and instrument numbers. In most cases, this information is necessary to determine EAL thresholds.

PROPOSED LICENSE CONDITION:

{Calvert Cliffs 3 Nuclear Project and UniStar Nuclear Operating Services} shall submit ~~to~~ the plant specific values to the NRC for approval in order to address the remaining bracketed values in the {CCNPP Unit 3} EALs and associated Technical Bases Manual as identified below. These plant specific values shall be submitted to the NRC within 2 years of scheduled date for initial fuel load.

Emergency Action Level	Parameter
FC2(L)1 RC2(L)1 CT2(PL)1	Containment Radiation Monitor
FC3(L)1 FC3(PL)1 CT3(PL)1.a CT3(PL)2.a FC4(PL)1.b RC5(L)1 SG1.b SG3.1.c	Calculated Clad Temperature
CT3(PL)2.b FC4(PL)1.a	RCS Level (hot modes)
RG1.1 RS1.1 RA1.1 RU1.1	Vent Stack Noble Gas
RU2.1.a	Reactor Refueling Cavity Level
RU2.1.a	Spent Fuel Pool Level
RU2.1.a	Fuel Transfer Canal Level
SU9.1	Gross Failed Fuel Monitor
CG7.2.a CS7.3.b	Source Range Monitor
CS7.1.b CA7.1	RCS Level (cold modes)

9. ENVIRONMENTAL PROTECTION PLAN

Operating licenses typically have included the following condition related to environmental protection.

PROPOSED LICENSE CONDITION:

The issuance of this COL, subject to the Environmental Protection Plan and the conditions for the protection of the environment set forth herein, is in accordance with the National Environmental Policy Act of 1969, as amended, and with applicable sections of 10 CFR Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions," as referenced by Subpart C of 10 CFR Part 52, "Early Site Permits; Standard Design Certifications; and Combined Licenses for Nuclear Power Plants," and all applicable requirements therein have been satisfied.

ENVIRONMENTAL PROTECTION PLAN (NONRADIOLOGICAL)

1.0 Objectives of the Environmental Protection Plan

The purpose of the Environmental Protection Plan (EPP) is to provide for protection of nonradiological environmental resources during construction and operation of the nuclear facility. The principal objectives of the EPP are as follows:

1. Verify that the facility is operated in an environmentally acceptable manner, as established by the Final Environmental Impact Statement (FEIS) and other NRC environmental impact assessments.

2. Coordinate NRC requirements and maintain consistency with other Federal, State and local requirements for environmental protection.

3. Keep NRC informed of the environmental effects of facility construction and operation and of actions taken to control those effects.

Environmental concerns identified in the FEIS which relate to water quality matters are regulated by way of the licensee's {NPDES} permit.

2.0 Environmental Protection Issues

In the FEIS dated [month year], the staff considered the environmental impacts associated with the construction and operation of the {Calvert Cliffs Nuclear Power Plant (CCNPP) Unit 3}. Certain environmental issues were identified which required study or license conditions to resolve environmental concerns and to assure adequate protection of the environment. The objective of this Enviromental Protection Plan is to ensure that impacts associated with construction and operation for {CCNPP Unit 3} in accordance with the facility combined operating license (COL) will not exceed in any significant respect the impacts assessed in the FEIS.

2.1 Aquatic Issues

No specific nonradiological aquatic impact issues were identified by NRC staff in the FEIS.

2.2 Terrestrial Issues

No specific nonradiological terrestrial impact issues were identified by NRC staff in the FEIS.

3.0 Consistency Requirements

3.1 Plant Design, Construction, and Operation Activities

The licensee may make changes in plant~~station~~ design or operation or perform tests or experiments affecting the environment provided such activities do not involve an unreviewed environmental question and do not involve a change in the EPP (note: this provision does not relieve the licensee of the requirements of 10 CFR 50.59 or the change requirements established in the applicable Appendix of 10 CFR 52). Changes in plant~~station~~ design or operation or performance of tests or experiments which do not affect the environment are not subject to the requirements of this EPP. Activities governed by Section 3.3 are not subject to the requirements of this section.

Before engaging in additional construction or operational activities which may significantly affect the environment, the licensee shall prepare and record an environmental evaluation of such activity. Activities are excluded from this requirement if all measurable nonradiological environmental effects are confined to the on-site-areas previously disturbed during site preparation and plant construction. When the evaluation indicates that such activity involves an unreviewed environmental question, the licensee shall provide a written evaluation of such activity and obtain prior NRC approval. When such activity involves a change in the EPP, such activity and change to the EPP may be implemented only in accordance with an appropriate license amendment as set forth in Section 5.3 of this EPP.

A proposed change, test or experiment shall be deemed to involve an unreviewed environmental question if it concerns: (1) a matter which may result in a significant increase in any adverse environmental impact previously evaluated in the FEIS, environmental impact appraisals, or in any decisions of the Atomic Safety and Licensing Board; or (2) a significant change in effluents or power level; or (3) a matter, not previously reviewed and evaluated in the documents specified in (1) of this Subsection, which may have a significant adverse environmental impact.

The licensee shall maintain records of changes in facility design or operation and of tests and experiments carried out pursuant to this Subsection. These records shall include written evaluations which provide bases for the determination that the change, test, or experiment does not involve an unreviewed environmental question or constitute a decrease in the effectiveness of this EPP to meet the objectives specified in Section 1.0. The licensee shall include as part of the Annual Environmental Operating Report (per Subsection 5.4.1) brief descriptions, analyses, interpretations, and evaluations of such changes, tests and experiments.

3.2 Reporting Related to the {NPDES} Permit and State Certification

Changes to, or renewals of, the {NPDES} Permits or the State certification shall be reported to the NRC within 30 days following the date the change or renewal is approved. If a permit or certification, in part or in its entirety, is appealed and stayed, the NRC shall be notified within 30 days following the date the stay is granted.

The licensee shall notify the NRC of changes to the effective {NPDES} Permit proposed by the licensee by providing NRC with a copy of the proposed change at the same time it is submitted to the permitting agency. The licensee shall provide the NRC a copy of the application for renewal of the {NPDES} Permit at the same time the application is submitted to the permitting agency.

3.3 Changes Required for Compliance with Other Environmental Regulations

Changes in plant design or operation and performance of tests or experiments which are required to achieve compliance with other Federal, State, and local environmental regulations are not subject to the requirements of Section 3.1.

4.0 Environmental Conditions

4.1 Unusual or Important Environmental Events

The licensee shall evaluate and report to the NRC Operations Center within 24 hours (followed by a written report in accordance with S~~ubs~~ection 5.4) any occurrence of an unusual or important event that indicates or could result in significant environmental impact causally related to the construction activities or plant operation. The following are examples of unusual or important environmental events: onsite plant or animal disease outbreaks, mortality or unusual occurrence of any species protected by the Endangered Species Act of 1973, unusual fish kills, unusual increase in nuisance organisms or conditions, and unanticipated or emergency discharge of waste water or chemical substances. Routine monitoring programs are not required to implement this condition.

4.2 Environmental Monitoring

4.2.1 Aquatic Monitoring

No specific nonradiological aquatic monitoring requirements were identified by NRC staff in the FEIS.

4.2.2 Terrestrial Monitoring

No specific nonradiological terrestrial monitoring requirements were identified by NRC staff in the FEIS.

5.0 Administrative Procedures

5.1 Review and Audit

The licensee shall provide for review and audit of compliance with the EPP. The audits shall be conducted independently; they may not be conducted by the individual or groups responsible for performing the specific activity. A description of the organizational structure utilized to achieve the independent review and audit function and results of the audit activities shall be maintained and made available for inspection.

5.2 Records Retention

The licensee shall make and retain records associated with this EPP in a manner convenient for review and inspection and shall make them available to the NRC on request.

The licensee shall retain records of construction and operation activities determined to potentially affect the continued protection of the environment for the life of the plant~~station~~. The licensee shall retain all other records relating to this EPP for five years or, where applicable, in accordance with the requirements of other agencies.

5.3 Changes in the Environmental Protection Plan

Requests for changes in the EPP shall include an assessment of the environmental impact of the proposed change and a supporting justification. Implementation of such changes in the EPP shall not commence prior to NRC approval of the proposed changes in the form of a permit amendment incorporating the appropriate revision to the EPP.

5.4 Reporting Requirements

5.4.1 Routine Reports

An Annual Nonradiological Environmental Report describing implementation of this EPP for the previous year shall be submitted to the NRC prior to June 1 of each year. The initial report shall be submitted prior to June 1 of the year following issuance of the operating license.

The report shall include summaries and analyses of the results of the environmental protection activities required by S~~ubs~~ection 4.2 of this EPP for the report period, including a comparison with related preoperational studies, operational controls (as appropriate), and previous nonradiological environmental monitoring reports, and an assessment of the observed impacts of the plant operation on the environment. If harmful effects or evidence of trends toward irreversible damage to the environment are observed, the licensee shall provide a detailed analysis of the data and a proposed course of mitigating action.

The Annual Nonradiological Environmental Report shall also include:

a. A list of EPP noncompliances and the corrective actions taken to remedy them.

b. A list of changes in plant~~station~~ design or operation, tests, and experiments made in accordance with S~~ubs~~ection 3.1 which involved a potentially significant unreviewed environmental question.

c. A list of nonroutine reports submitted in accordance with Subsection 5.4.2.

~~d.~~In the event that some results are not available by the report due date, the report shall be submitted noting and explaining the missing results. The missing results shall be submitted as soon as possible in a supplementary report.

5.4.2 Nonroutine Reports

The licensee shall submit a written report to the NRC within 30 days of occurrence of any event described in Section 4.1 of this plan. The report should:

a. ~~e.~~describe, analyze, and evaluate the event, including the extent and magnitude of the impact, and site preparation and preliminary construction activities underway at the time of the event,

b. ~~f.~~describe the likely cause of the event,

c. ~~g.~~indicate the action taken to correct the reported event,

d. ~~h.~~indicate the corrective action taken to preclude repetition of the event and to prevent similar occurrences involving similar site preparation and preliminary construction activities, and

e. ~~i.~~indicate the agencies notified and their preliminary responses.

For events reportable under this subsection that also require reports to other Federal, State or local agencies, the licensee shall report in accordance with those reporting requirements in lieu of the requirements of this subsection. The licensee shall provide the NRC with a copy of such report at the same time it submits it to the other agency.

10. PLANT SPECIFIC TECHNICAL SPECIFICATIONS

The Generic Technical Specifications provide Limiting Trip Setpoints that cannot be determined until after the COL is issued.

PROPOSED LICENSE CONDITION:

TS 3.3.1 {Calvert Cliffs Unit 3 Nuclear Power Plant} shall submit a license amendment following completion of a plant-specific setpoint study following selection of the plant-specific instrumentation. This amendment shall update Table 3.3.1-2 and the associated Bases to provide plant-specific setpoint information.

Appendix B- Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC)

1. TIER 1 INFORMATION

U.S. EPR FSAR Tier 1 is incorporated by reference.

2. COL APPLICATION ITAAC

The ITAAC for the COLA are provided in tabular form, consistent with the format shown in Regulatory Guide 1.206, Table C.II.1-1.

The COL Application-ITAAC consist of the following four parts.

1. Design Certification ITAAC (Section 2.1)
2. Physical Security ITAAC (Section 2.2)
3. Emergency Planning ITAAC (Section 2.3)
4. Site-Specific ITAAC (Section 2.4)

Completion of the ITAAC is a proposed condition of the combined license to be satisfied prior to fuel load.

2.1 DESIGN CERTIFICATION ITAAC

The Design Certification ITAAC are contained in U.S. EPR FSAR Tier 1, which is incorporated ~~in~~ by reference in Section 1.

2.2 PHYSICAL SECURITY ITAAC

The Physical Security ITAAC are contained in U.S. EPR FSAR Tier 1, which is incorporated ~~in~~ by reference in Section 1.

2.3 EMERGENCY PLANNING ITAAC

The Emergency Planning ITAAC are provided in Table 2.3-1.

Table 2.3-1—Emergency Planning ITAACPreparedness Inspections, Tests, Analyses, and Acceptance Criteria

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Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
1.0 Emergency Classification System			
10 CFR 50.47(b)(4) – A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.	1.1 A standard emergency classification and emergency action level (EAL) scheme exists, and identifies facility system and effluent parameters constituting the bases for the classification scheme. [D.1]	1.1 An inspection of the Control Room, Technical Support Center (TSC), and Emergency Operations Facility (EOF) will be performed to verify that they have displays for retrieving facility system and effluent parameters as specified in the Emergency Classification and EAL scheme and the displays are functional.	1.1.21 The parameters specified in the {Calvert Cliffs Nuclear Power Plant Unit 3} U.S. EPR EAL Technical Basis Manual and listed below are retrievable and displayed in the Control Room, TSC and EOF. 1.1.2 The ranges of the displays in the Control Room, TSC and EOF encompass the values for the parameters specified in the {Calvert Cliffs Nuclear Power Plant Unit 3} U.S. EPR EAL Technical Basis Manual.

Table 2.3-1—Emergency Planning ITAAC~~Preparedness Inspections, Tests, Analyses, and Acceptance Criteria~~

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Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
2.0 Notification Methods and Procedures			
10 CFR 50.47(b)(5) – Procedures have been established for notification, by the licensee, of State and local response organizations and for notification of emergency personnel by all organizations; the content of initial and follow-up messages to response organizations and the public has been established; and means to provide early notification and clear instruction to the populace within the plume exposure pathway Emergency Planning Zone have been established.	2.1 The means exist~~s~~ to notify responsible State and local organizations within 15 minutes after the licensee declares an emergency. [E.1]	2.1. A test of the dedicated offsite notification system will be performed to demonstrate the capabilities for providing initial notification to the offsite authorities after a simulated emergency classification.	2.1 The {State of Maryland and the counties of St. Mary's, Calvert and Dorchester} receive notification within 15 minutes after the declaration of a simulated emergency classification.
	2.2 The means exist~~s~~ to notify emergency response personnel. [E.2]	2.2 A test of the primary and back-up ERO notification systems will be performed.	2.2 {CCNPP Unit 3} emergency response personnel receive the notification message, as validated by a survey (indicating the time of receipt) or a report to ensure full staffing in the prescribed time requirement.
	2.3 The means exist~~s~~ to notify and provide instructions to the populace within the plume exposure EPZ. [E.6]	2.3.1 A test will be performed of the {CCNPP} Alert and Notification System. The clarifying notes listed in NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," will be used for this test.	2.3.1 Greater than 94% of ANS sirens are capable of performing their function.
		2.3.2 The pre-operational Federally evaluated exercise (ITAAC 8.0) will demonstrate the means to provide instructions to the populace within the plume exposure EPZ.	2.3.2 Successful completion of Federal Register 20-580, "FEMA Radiological Emergency Preparedness: Exercise Evaluation Methodology," Criterion 5.b.1 (ORO~~'~~s provide accurate emergency information and instruction to the public and the news media in a timely manner) during the pre-operational federally–evaluated exercise required in ITAAC 8.0.
3.0 Emergency Communications			
10 CFR 50.47(b)(6) – Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.	3.1 The means exist~~s~~ for communications among the Control Room, TSC, EOF, principal State and local emergency operations centers (EOCs), and radiological field assessment teams. [F.1.d]	3.1 A test is performed to confirm the capability to communicate between: 1) the Control Room, TSC, and EOF; 2) the Control Room, TSC, and EOF with the principal EOCs; and 3) the TSC and EOF with the radiological field monitoring teams.	3.1.~~1~~ Communications (both primary and secondary methods/systems) are established: 1) Between the {CCNPP Unit 3} Control Room and TSC and the EOF, 2) Between the {CCNPP Unit 3} Control Room and TSC and the EOF with the {a) ~~{~~State of Maryland warning point and EOC; b) St Mary's County Warning Point and EOC; c) Calvert County Warning Point and EOC; and d) Dorchester County Warning Point and EOC,} and 3) Between the {CCNPP Unit 3} TSC and EOF with the {CCNPP Unit 3} radiological field monitoring teams.

Table 2.3-1—Emergency Planning ITAAC~~Preparedness Inspections, Tests, Analyses, and Acceptance Criteria~~

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Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
	3.2 The means exist~~s~~ for communications from the Control Room, TSC, and EOF to the NRC headquarters and regional office EOCs (including establishment of the Emergency Response Data System (ERDS) [or its successor system] between the onsite computer system and the NRC Operations Center.) [F.1.f]	3.2.1 A test is performed to confirm the capability to communicate using ENS from the Control Room, TSC and EOF to the NRC headquarters and regional office EOCs.	3.2.1 Communications are established from the {CCNPP Unit 3} Control Room and TSC and EOF to the NRC headquarters and regional office EOCs utilizing the ENS.
		3.2.2 A test is performed to confirm the capability to communicate between the TSC and EOF with the NRC Operations Center utilizing HPN .	3.2.2 The {CCNPP Unit 3} TSC and EOF demonstrate~~s~~ communications with the NRC Operations Center using HPN.
		3.2.3 A test is performed to establish the capability to transfer data to the NRC Operations Center via ERDS [or its successor system] through a link with the onsite computer systems and the NRC Operations Center.	3.2.3 The access port for ERDS [or its successor system] exists and successfully completes a transfer of data from {CCNPP Unit 3} to the NRC Operations Center in accordance with 10 CFR 50 Appendix E.VI, Emergency Response Data System.
4.0 Public Education and Information			
10 CFR 50.47(b)(7) – Information is made available to the public on a periodic basis on how they will be notified and what their initial actions should be in an emergency (e.g., listening to a local broadcast station and remaining indoors), the principal points of contact with the news media for dissemination of information during an emergency (including the physical location or locations) are established in advance, and procedures for coordinated dissemination of information to the public are established.	4.1 The licensee has provided space which may be used for a limited number of the news media at the EOF. [G.3.b] {Note: For CCNPP Unit 3, the space for the news media is provided in the Joint Information Center (JIC), co-located with the EOF.}	4.1 An inspection of the JIC will be conducted to verify adequate space is provided for a limited number of news media.	4.1 {The JIC is co-located with the EOF, and has 4,546 square feet of space.} A portion of this space can adequately accommodate a limited number of news media.

Table 2.3-1—Emergency Planning ITAAC~~Preparedness Inspections, Tests, Analyses, and Acceptance Criteria~~
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Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
5.0 Emergency Facilities and Equipment			
10 CFR 50.47(b)(8) – Adequate emergency facilities and equipment to support the emergency response are provided and maintained.	5.1 The licensee has established a Technical Support Center (TSC) and onsite Operations Support Center (OSC). [H.1, H.9]	5.1 An inspection of the as-built TSC and OSC will be performed including a test of the capabilities.	5.1.1 The {CCNPP Unit 3} TSC contains a minimum working space of {1875} square feet. 5.1.2 The {CCNPP Unit 3} TSC is located on the same floor level as the Control Room. 5.1.3 The {CCNPP Unit 3} TSC is located in the fully hardened {Unit 3} Safeguards Building. It is also within the control room envelope (CRE) which maintains habitability during normal, off-normal and emergency conditions. 5.1.4 The {CCNPP Unit 3} TSC communications capabilities are addressed by the ITAAC Acceptance Criterion 3.1.1. 5.1.5 The {CCNPP Unit 3} TSC receives and displays the plant and environmental information for the parameters specified in the {Calvert Cliffs Nuclear Power Plant Unit 3} U.S. EPR EAL Technical Basis Manual and ~~listed in~~ ITAAC Acceptance Criterion 1.1.1. 5.1.6 The capability to initiate emergency measures and conduct emergency assessment was successfully demonstrated during the pre-operational federally–evaluated exercise required in ITAAC 8.0. 5.1.7 The {CCNPP Unit 3} Operations Support Center (OSC) is located in the {CCNPP Unit 3} Access Building within the protected area separate from the {Unit 3} Control Room and Technical Support Center. 5.1.8 The {Unit 3} U.S. EPR OSC communications capabilities are addressed by the Acceptance Criterion 3.1.1.

Table 2.3-1—Emergency Planning ITAAC~~Preparedness Inspections, Tests, Analyses, and Acceptance Criteria~~

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Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
	5.2 The licensee has established an EOF. [H.2]	5.2.1 A test of the capabilities of the EOF will be performed~~,~~. {NOTE: The CCNPP EOF is a shared facility for CCNPP Units 1 & 2 and Unit 3 and was previously inspected for Units 1 & 2.} 5.2.2 An inspection of the implementation of the Human Factors Engineering Program EOF design requirements will be performed.	5.2.1.1 {The CCNPP EOF has a at least 4,912 square feet and is large enough for required systems, equipment, records and storage.} 5.2.1.2 The {CCNPP} EOF communications capabilities are addressed by the Acceptance Criterion 3.1.1. 5.2.1.3 The {CCNPP} EOF's plant information system can retrieve and display the radiological, meteorological, plant system data for the parameters specified in the {Calvert Cliffs Nuclear Power Plant Unit 3} U.S. EPR EAL Technical Basis Manual and ~~listed in~~ ITAAC Acceptance Criterion 1.1.1. 5.2.1.4 The capability to perform offsite protective measures was successfully demonstrated during the pre-operational federally–evaluated exercise required in ITAAC 8.0.
			5.2.2 The Human Factors Engineering Program design requirements for the {CCNPP Unit 3} are incorporated in the EOF.

Table 2.3-1—Emergency Planning ITAAC~~Preparedness Inspections, Tests, Analyses, and Acceptance Criteria~~

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Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
6.0 Accident Assessment			
10 CFR 50.47(b)(9) – Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use.	6.1 The means exist~~s~~ to provide initial and continuing radiological assessment throughout the course of an accident. [I.2]	6.1 A test will be performed to demonstrate that the means exist~~s~~ to provide initial and continuing radiological assessment throughout the course of an accident.	6.1 A report exists that confirms an exercise or drill has been accomplished including use of selected monitoring parameters specified in the {Calvert Cliffs Nuclear Power Plant Unit 3} U.S. EPR EAL Technical Basis Manual and ~~listed in~~ ITAAC Acceptance Criterion 1.1.1 to assess simulated degraded plant conditions and initiate protective actions in accordance with the following criteria: A. Accident Assessment and Classification 1. ~~2.~~Initiating conditions identified, EALs parameters determined, and the emergency correctly classified throughout the drill. B. Radiological Assessment and Control 1. Onsite radiological surveys performed and samples collected. 2. Radiation exposure of emergency workers monitored and controlled. 3. Field monitoring teams assembled and deployed. 4. Field team data collected and disseminated. 5. Dose projections developed. 6. The decision whether to issue radioprotective drugs to {CCNPP Unit 3} emergency workers made. 7. Protective action recommendations developed and communicated to appropriate authorities.
	6.2 The means exist~~s~~ to determine the source term of releases of radioactive material within plant systems, and the magnitude of the release of radioactive materials based on plant system parameters and effluent monitors. [I.3]	6.2 An analysis of emergency plan implementing procedures will be performed.	6.2 A methodology has been established to determine source term of releases of radioactive materials within plant systems and the magnitude of the release of radioactive materials based on plant system parameters and effluent monitors.

Table 2.3-1—Emergency Planning ITAAC~~Preparedness Inspections, Tests, Analyses, and Acceptance Criteria~~

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Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
	6.3 The means exist~~s~~ to continuously assess the impact of the release of radioactive materials to the environment, accounting for the relationship between effluent monitor readings, and onsite and offsite exposures and contamination for various meteorological conditions. [I.4]	6.3 An analysis of emergency plan implementing procedures will be performed.	6.3.1 A methodology has been established accounting for the relationship between effluent monitor readings and onsite and offsite exposures and contamination for various radiological conditions. 6.3.2 The continuous assessment of the impact of the release of radioactive materials to the environment is addressed in ITAAC Acceptance Criterion~~a~~ 6.1.
	6.4 The means exist~~s~~ to acquire and evaluate meteorological information. [I.5]	6.4 An inspection will be performed to verify the meteorological data/information is available to emergency response personnel in the Control Room, TSC and EOF.	6.4 The {CCNPP Unit 3} Control Room, TSC and EOF can acquire {wind speed data (at 10m and 60m); wind direction data (at 10m and 60m); and ambient air temperature data (at 10m and 60m).}
	6.5 The means exist~~s~~ to make rapid assessments of actual or potential magnitude and locations of radiological hazards through liquid or gaseous release pathways, including activation, notification means, field team composition, transportation, communication, monitoring equipment, and estimated deployment times. [I.8]	6.5 An analysis of emergency plan implementing procedures will be performed.	6.5.1 A methodology has been established to provide rapid assessment of the actual or potential magnitude and locations of any radiological hazards through liquid or gaseous release pathways. 6.5.2 The activation, notification means, field team composition, transportation, communication, monitoring equipment, and estimated deployment times are addressed in ITAAC Acceptance Criterion~~a~~ 6.1.
	6.6 The capability exists to detect and measure radioiodine concentrations in air in the plume exposure EPZ, as low as 10^{-7} µCi/cc (microcuries per cubic centimeter) under field conditions. [I.9]	6.6 An inspection will be performed of the capabilities to detect and measure radioiodine concentrations in air in the plume exposure EPZ, as low as 1E-07 µCi/cc (microcuries per cubic centimeter) under field conditions.	6.6 The equipment and procedures are adequate to detect and measure radioiodine concentrations in air in the plume exposure EPZ, as low as 1E-07 µCi/cc (microcuries per cubic centimeter).
	6.7 The means exist~~s~~ to estimate integrated dose from the projected and actual dose rates, and for comparing these estimates with the EPA protective action guides (PAGs). [I.10]	6.7 An analysis of emergency plan implementing procedures will be performed to verify that a methodology ~~to~~ is provided to establish means for relating contamination levels and airborne radioactivity levels to dose rates and gross radioactivity measurements for the isotopes specified in Table 2.2 of NUREG-1228.	6.7 The means for relating contamination levels and airborne radioactivity levels to dose rates and gross radioactivity measurements for the isotopes specified in NUREG-1228 has been established.

Table 2.3-1—Emergency Planning ITAACPreparedness Inspections, Tests, Analyses, and Acceptance Criteria

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Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
7.0 Protective Response			
10 CFR 50.47(b)(10) – A range of protective actions has been developed for the plume exposure EPZ for emergency workers and the public. In developing this range of actions, consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of potassium iodide (KI), as appropriate. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure EPZ appropriate to the locale have been developed.	7.1 The means exists to warn and advise onsite individuals of an emergency, including those in areas controlled by the operator, including:[J.1] 1. employees not having emergency assignments; 2. visitors; 3. contractor and construction personnel; and 4. other persons who may be in the public access areas, on or passing through the site, or within the owner controlled area.	7.1 A test will be performed to confirm the capability to warn and advise onsite individuals of an emergency, including those in areas controlled by the operator.	7.1.1 During a drill or exercise, notification and instructions are provided to onsite workers and visitors, within the Protected Area, over the plant public announcement system. 7.1.2 During a drill or exercise, warnings are provided to individuals outside the Protected Area, but within the Owner Controlled Area using the implementing procedures for the {CCNPP Unit 3} Emergency Plan submitted in accordance with ITAAC 9.0.

Table 2.3-1—Emergency Planning ITAACPreparedness Inspections, Tests, Analyses, and Acceptance Criteria
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Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills			
10 CFR 50.47(b)(14) – Periodic exercises are (will be) conducted to evaluate major portions of emergency response capabilities, periodic drills are (will be) conducted to develop and maintain key skills, and deficiencies identified as a result of exercises or drills are (will be) corrected.	8.1 Licensee conducts a full participation exercise to evaluate major portions of emergency response capabilities, which includes participation by each State and local agency within the plume exposure EPZ, and each State within the ingestion control EPZ. [N.1]	8.1 A full participation exercise (test) will be conducted within the specified time periods of Appendix E to 10 CFR Part 50. 8.2 An off-hours/unannounced drill will be conducted prior to full power operation to test mobilization of the onsite ERO.	8.1.1 The exercise is completed within the specified time periods of Appendix E to 10 CFR Part 50, onsite exercise objectives are met, and there are no uncorrected onsite exercise deficiencies in accordance with NRC Inspection Procedure (IP-71114.01, "Exercise Evaluation"). 8.1.2 The exercise is completed within the specified time periods of Appendix E to 10 CFR Part 50, offsite exercise objectives are met, and there are no uncorrected offsite exercise deficiencies in accordance with Federal Register 20-580, "FEMA Radiological Emergency Preparedness: Exercise Evaluation Methodology," and agreed to Extent of Play. 8.2.1 Onsite emergency response personnel are mobilized in sufficient numbers to fully staff and activate the TSC, OSC, EOF and JIC and command and control turnover from the {Shift Supervisor}.
9.0 Implementing Procedures			
10 CFR Part 50, App. E.V – No less than 180 days prior to the scheduled issuance of an operating license for a nuclear power reactor or a license to possess nuclear material, the applicant's detailed implementing procedures for its emergency plan shall be submitted to the Commission.	9.1 The licensee has submitted detailed implementing procedures for its emergency plan no less than 180 days prior to fuel load.	9.1 An inspection will be performed to confirm that the detailed implementing procedures for the {CCNPP Unit 3} Emergency Plan were submitted to the NRC.	9.1 Each of the detailed implementing procedures for the {CCNPP Unit 3} Emergency Plan, as defined in Appendix 2 of the Emergency Plan, are submitted to the NRC no less than 180 days prior to fuel load.

2.4 SITE-SPECIFIC ITAAC

The Site-Specific ITAAC are provided in ({Table 2.4-1 through Table 2.4-31)}. Site-specific systems were evaluated against selection criteria in {CCNPP Unit 3} FSAR Section 14.3.

Table 2.4-1—{Structural Fill and Backfill Under Seismic Category I and Seismic Category II-SSE Structures Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	For Seismic Category I and Seismic Category II-SSE structures, structural fill and backfill is sound, durable, well-graded sand or sand and gravel, with maximum 25 percent fines content, and free of organic matter, trash, and deleterious materials.	Tests will be performed to establish the acceptability of the structural fill and backfill.	For Seismic Category I and Seismic Category II-SSE structures, structural fill and backfill is sound, durable, well-graded sand or sand and gravel, with maximum 25 percent fines content (minus #200 U.S. Sieve) , and free of organic matter, trash, and deleterious materials.
2	The following soil properties are used for design of U.S. EPR Seismic Category I and Seismic Category II-SSE structures: a. Soil density: 1. Saturated soil = 134 lb/ft^3. 2. Moist soil = 128 lb/ft^3. 3. Dry soil = 110 lb/ft^3. b. Angle of internal friction = 35 degrees. c. Coefficient of friction acting on foundation base mats and near surface foundations for Seismic Category I structures = 0.7.	Tests will be performed to establish the static and dynamic properties of the structural fill and backfill.	The structural fill and backfill conforms to the following soil properties: a. The soil density conforms to the U.S. EPR Design requirement. b. Angle of internal friction ≥ 35 degrees. c. Coefficient of friction acting on foundation base mats and near surface foundations for Seismic Category I structures ≥ 0.7.
3	The installed fill and backfill for Seismic Category I and Seismic Category II-SSE foundations and walls meets the minimum soil density design requirements.	Tests will be performed during placement of the structural fill and backfill materials.	For Seismic Category I and Seismic Category II-SSE Structures, installed structural fill and backfill is compacted to minimum 95 percent of its maximum dry density, as determined based on the modified Proctor compaction test procedure, and within 3 percent of its optimum moisture content.
4	The minimum shear wave velocity (low strain best estimate average value) is 1000 ft per second at the bottom of the base mats for Seismic Category I and Seismic Category II-SSE structures.	Tests will be performed to confirm the backfill shear wave velocity at the bottom of the base mats for Seismic Category I and Seismic Category II-SSE structures.	A report exists that confirms the backfill shearwave velocity (low strain best estimate averagevalue) is .1000 ft per second at the bottom ofthe base mats for Seismic Category I andSeismic Category II-SSE structures.

Table 2.4-2—{Nuclear Island Structures Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	For the Nuclear Island structures' below grade concrete foundation and walls, a waterproofing membrane is utilized to eliminate direct contact of ground water chemicals.	An inspection of the as-built structure will be conducted.	For the as-built Nuclear Island structures' below grade concrete foundation and walls, the as-installed waterproofing membrane eliminates direct contact of ground water chemicals.
2	For the Nuclear Island structures' below grade concrete foundation and walls, a low water to cement ratio concrete and improved concrete mixture design will be utilized.	Tests will be conducted to ensure the concrete meets specific parameters.	The concrete utilized to construct the as-built Nuclear Island structures' below grade concrete foundation and walls met the following: a. A maximum water to cementitious materials ratio of 0.45. b. Contains a quantity of supplementary cementitious material appropriate for the exposure condition.

Table 2.4-3—{Emergency Power Generating Buildings Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	For the Emergency Power Generating Buildings' below grade concrete foundations and walls, a waterproofing membrane is utilized to eliminate direct contact of ground water chemicals.	An inspection of the as-built structure will be conducted.	For the as-built Emergency Power Generating Buildings' below grade concrete foundation and walls, the as-installed waterproofing membrane eliminates direct contact of ground water chemicals.
2	For the Emergency Power Generating Buildings' below grade concrete foundations and walls, a low water to cement ratio concrete and improved concrete mixture design will be utilized.	Tests will be conducted to ensure the concrete meets specific parameters.	The concrete utilized to construct the as-built Emergency Power Generating Buildings' below grade concrete foundation and walls met the following: c. A maximum water to cementitious materials ratio of 0.45. d. Contains a quantity of supplementary cementitious material appropriate for the exposure condition.

Table 2.4-4—{Nuclear Auxiliary Building Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	For the Nuclear Auxiliary Building's below grade concrete foundation and walls, a waterproofing membrane is utilized to eliminate direct contact of ground water chemicals.	An inspection of the as-built structure will be conducted.	For the as-built Nuclear Auxiliary Building's below grade concrete foundation and walls, the as-installed waterproofing membrane eliminates direct contact of ground water chemicals.
2	For the Nuclear Auxiliary Building's below grade concrete foundation and walls, a low water to cement ratio concrete and improved concrete mixture design will be utilized.	Tests will be conducted to ensure the concrete meets specific parameters.	The concrete utilized to construct the as-built Nuclear Auxiliary Building's below grade concrete foundation and walls met the following: a. A maximum water to cementitious materials ratio of 0.45. b. Contains a quantity of supplementary cementitious material appropriate for the exposure condition.

Table 2.4-5—{Radioactive Waste Building Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	For the Radioactive Waste Building's below grade concrete foundation and walls, a waterproofing membrane is utilized to eliminate direct contact of ground water chemicals.	An inspection of the as-built structure will be conducted.	For the as-built Radioactive Waste Building's below grade concrete foundation and walls, the as-installed waterproofing membrane eliminates direct contact of ground water chemicals.
2	For the Radioactive Waste Building's below grade concrete foundation and walls, a low water to cement ratio concrete and improved concrete mixture design will be utilized.	Tests will be conducted to ensure the concrete meets specific parameters.	The concrete utilized to construct the as-built Radioactive Waste Building's below grade concrete foundation and walls met the following: a. A maximum water to cementitious materials ratio of 0.45. b. Contains a quantity of supplementary cementitious material appropriate for the exposure condition.

Table 2.4-6—{Essential Service Water Buildings Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	For the Essential Service Water Buildings' below grade concrete foundations and walls, a waterproofing membrane is utilized to eliminate direct contact of ground water chemicals.	An inspection of the as-built structure will be conducted.	For the as-built Essential Service Water Buildings' below grade concrete foundation and walls, the as-installed waterproofing membrane eliminates direct contact of ground water chemicals.
2	For the Essential Service Water Buildings' below grade concrete foundations and walls, a low water to cement ratio concrete and improved concrete mixture design will be utilized.	Tests will be conducted to ensure the concrete meets specific parameters.	The concrete utilized to construct the as-built Essential Service Water Buildings' below grade concrete foundation and walls met the following: a. A maximum water to cementitious materials ratio of 0.45. b. Contains a quantity of supplementary cementitious material appropriate for the exposure condition.

Table 2.4-7—{Ultimate Heat Sink Makeup Water Intake Structure Inspections, Tests, Analyses, and Acceptance Criteria}
(Page 1 of 2)

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	a. The existing bulkhead retaining wall will be extended along the northeast side of the UHS Makeup Water Intake Structure. b. The new bulkhead retaining wall will extend below the bottom of the CCNPP Unit 3 intake channel at Elevation -20.5 ft. . c. The new bulkhead retaining wall can resist the impact of wave forces.	a. An inspection of the as-built structure will be conducted. b. An inspection of the as-built structure will be conducted. c. An inspection of the as-built structure will be conducted.	a. The as-built bulkhead retaining wall is located along the northeast side of the UHS Makeup Water Intake Structure. b. The as-built bulkhead retaining wall conforms to the approved design. c. The as-built bulkhead retaining wall conforms to the approved design and can resist the impact of wave forces.
2	The UHS Makeup Water Intake Structure is Seismic Category I and can withstand design basis loads, including the static and dynamic forces associated with a flood, without a loss of structural integrity.	An inspection of the as-built structure will be conducted.	The as-built UHS Makeup Water Intake Structure conforms to the approved design and is capable of withstanding the design basis loads, including static and dynamic flood forces, without loss of integrity.
3	The retaining wall surrounding the CCNPP Unit 3 Intake Channel (i.e., Forebay) is designated as Seismic Category II, and can withstand design basis seismic load without a loss of structural integrity.	An inspection of the as-built structure will be conducted.	The as-built retaining wall surrounding the CCNPP Unit 3 Intake Channel conforms to the approved design and withstands the design basis seismic load without loss of integrity.
4	For the UHS Makeup Water Intake Structure's below grade concrete foundation and walls, a waterproofing membrane is utilized to eliminate direct contact of ground water chemicals.	An inspection of the as-built structure will be conducted.	For the as-built UHS Makeup Water Intake Structure's below grade concrete foundation and walls, the as-installed waterproofing membrane eliminates direct contact of ground water chemicals.
5	For the UHS Makeup Water Intake Structure's below grade concrete foundation and walls, a low water to cement ratio concrete and improved concrete mixture design will be utilized.	Tests will be conducted to ensure the concrete meets specific parameters.	The concrete utilized to construct the as-built UHS Makeup Water Intake Structure's below grade concrete foundation and walls met the following: a. A maximum water to cementitious materials ratio of 0.45. b. Contains a quantity of supplementary cementitious material appropriate for the exposure condition.
6	The interior structures housing each mechanical division of the UHS Makeup Water Supply System in the UHS Makeup Water Intake Structure can withstand the static and dynamic forces associated with a flood, without a loss of structural integrity.	An inspection of the as-built structure will be conducted.	The interior structures housing each mechanical division of the UHS Makeup Water Supply System in the as-built UHS Makeup Water Structure conform to the approved design and is capable of withstanding the static and dynamic forces associated with a flood, without a loss of structural integrity.

Table 2.4-7—{Ultimate Heat Sink Makeup Water Intake Structure Inspections, Tests, Analyses, and Acceptance Criteria}

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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
7	The configuration of the UHS Makeup Water Intake Structure separates each mechanical division of the UHS Makeup Water Supply System. The separation measures are: 1. 3-hour rated fire barriers. 2. Door openings, ventilation system openings, and ductwork penetrations that penetrate 3-hour rated fire barriers will have at least 3-hour fire rated doors or 3-hour fire rated dampers. 3. Penetrations through fire rated walls, floors, and ceilings are sealed or otherwise closed with rated penetration seal assemblies.	a. Type tests, analyses, or a combination of type tests or analyses is will be performed to establish that the fire barriers, doors, dampers, and penetrations are properly qualified. b. An inspection of the as-built barriers, doors, dampers, and penetrations will be conducted.	a. The fire barriers, doors, dampers, and penetrations that separate each mechanical division of the as-built UHS Makeup Water Intake Structure consist of the following: 1. 3-hour rated fire barriers. 2. Door openings, ventilation system openings, and ductwork penetrations that penetrate 3-hour rated fire barriers are at least 3-hour fire rated doors or 3-hour fire rated dampers. 3. Penetrations through fire rated walls, floors, and ceilings are sealed or otherwise closed with rated penetration seal assemblies. b. The as-built configuration of fire barriers, doors, dampers, and penetrations that separate each mechanical division of the UHS Makeup Water Supply in the as-built UHS Makeup Water Intake Structure conforms to the design
8	The pump house area of the UHS Makeup Water Intake Structure will be water tight to resist external and internal floods:. 1. Structural walls and roofs will have water stops at all construction joints to prevent leakage. 2. Any pipe, pump shaft, or other penetrations will be sealed with water tight fittings. 3. Access to these spaces will be provided with water tight submarine doors or water tight hatches that open outward.	a. Type tests or tests will be performed to establish that the water protection measures are water tight. b. An inspection of the water stops, fittings, submarine doors, and hatches will be conducted.	c. The water stops, fittings, submarine doors, and hatches in the as-built UHS Makeup Water Intake Structure are water tight. b.1.Water stops are installed in the construction joints in structural walls and roofs in accordance with manufacturer's recommendations. b.2.Water tight fittings for seal pipes, pumps shafts, and other penetrations are installed in accordance with manufacturer's recommendations. b.3.Water tight submarine doors or water tight hatches are installed in the access ways in accordance with manufacturer's recommendations, including opening outward.
9	The water tight measures (i.e., water stops, fittings, submarine doors, and hatches) for the UHS Makeup Water Intake Structure will also be designed for the static and dynamic flood forces resulting from the PMH water levels and wave forces.	Type tests or analyses will be performed to establish that the water tight measures are capable of withstanding the dynamic flood forces.	A report exists that establishes that the water tight measures (i.e., water stops, fittings, submarine doors, and hatches) for the UHS Makeup Water Intake Structure can withstand the static and dynamic flood forces.

Table 2.4-8—{Ultimate Heat Sink Electrical Building Inspections, Tests, Analyses, and Acceptance Criteria}

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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The UHS Electrical Building is Seismic Category I, and can withstand design basis loads, including the static and dynamic forces associated with a flood, without a loss of structural integrity.	An inspection of the as-built structure will be conducted.	The as-built UHS Electrical Building conforms to the approved design and is capable of withstanding the design basis loads, including static and dynamic flood forces, without loss of integrity.
2	For the UHS Electrical Building's below grade concrete foundation and walls, a waterproofing membrane is utilized to eliminate direct contact of ground water chemicals.	An inspection of the as-built structure will be conducted.	For the as-built UHS Electrical Building's below grade concrete foundation and walls, the waterproofing membrane eliminates direct contact of ground water chemicals.
3	For the UHS Electrical Building's below grade concrete foundation and walls, a low water to cement ratio concrete and improved concrete mixture design will be utilized.	Tests will be conducted to ensure the concrete meets specific parameters.	The concrete utilized to construct the as-built UHS Electrical Building's below grade concrete foundation and walls met the following: a. A maximum water to cementitious materials ratio of 0.45. b. Contains a quantity of supplementary cementitious material appropriate for the exposure condition.
4	The interior structures housing the electrical divisions for the UHS Makeup Water System in the UHS Electrical Building can withstand the static and dynamic forces associated with a flood, without a loss of structural integrity.	An inspection of the as-built structure will be conducted.	The interior structures housing the electrical divisions for the UHS Makeup Water System in the as-built UHS Electrical Building conform to the approved design and is capable of withstanding the static and dynamic forces associated with a flood, without a loss of structural integrity.

Table 2.4-8—{Ultimate Heat Sink Electrical Building Inspections, Tests, Analyses, and Acceptance Criteria}

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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
5	The configuration of the UHS Electrical Building separates each electrical division of the UHS Makeup Water Supply System. The separation measures are: 1. 3-hour rated fire barriers. 2. Door openings, ventilation system openings, and ductwork penetrations that penetrate 3-hour rated fire barriers will have at least 3-hour fire rated doors or 3-hour fire rated dampers. 3. Penetrations through fire rated walls, floors, and ceilings are sealed or otherwise closed with rated penetration seal assemblies.	a. Type tests, analyses, or a combination of type tests or analyses is will be performed to establish that the fire barriers, doors, dampers, and penetrations are properly qualified. b. An inspection of the as-built barriers, doors, dampers, and penetrations will be conducted.	a. The fire barriers, doors, dampers, and penetrations that separate each electrical division of the as-built UHS Electrical Building consist of the following: 1. 3-hour rated fire barriers. 2. Door openings, ventilation system openings, and ductwork penetrations that penetrate 3-hour rated fire barriers are at least 3-hour fire rated doors or 3-hour fire rated dampers. 3. Penetrations through fire rated walls, floors, and ceilings are sealed or otherwise closed with rated penetration seal assemblies. b. The as-built configuration of fire barriers, doors, dampers, and penetrations that separate each mechanical division of the UHS Makeup Water Supply in the as-built UHS Electrical Building conforms to the design.
6	The UHS Electrical Building will be water tight to resist external floods: 1. Structural walls and roofs will have water stops at all construction joints to prevent leakage. 2. Any pipe, pump shaft, or other penetrations will be sealed with water tight fittings. 3. All access to these spaces will be provided with water tight submarine doors or water tight hatches that open outward.	a. Type tests or tests will be performed to establish that the water protection measures are water tight. b. An inspection of the water stops, fittings, submarine doors, and hatches will be conducted.	a. The water stops, fittings, submarine doors, and hatches in the as-built UHS Electrical Building are water tight b.1.Water stops are installed in the construction joints in structural walls and roofs in accordance with manufacturer's recommendations. b.2.Water tight fittings for seal pipes, pumps shafts, and other penetrations are installed in accordance with manufacturer's recommendations. b.3.Water tight submarine doors or water tight hatches are installed in the access ways in accordance with manufacturer's recommendations, including opening outward.
7	The water tight measures (i.e., water stops, fittings, submarine doors, and hatches) for the UHS Electrical Building will also be designed for the static and dynamic flood forces resulting from the PMH water levels and wave forces.	Type tests or analyses will be performed to establish that the water tight measures are capable of withstanding the dynamic flood forces.	A report exists that establishes that the water tight measures (i.e., water stops, fittings, submarine doors, and hatches) for the UHS Electrical Building can withstand the static and dynamic flood forces.

Table 2.4-9—{Buried Duct Banks and Pipes Inspections, Tests, Analyses, and Acceptance Criteria}}

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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	Seismic Category I buried electrical duct banks traverse from: 1. The UHS Makeup Water Intake Structure to the UHS Electrical Building. 2. Each Essential Service Water Building to the UHS Electrical Building, including underneath the main heavy haul road. 3. The Safeguards Buildings to the four Essential Service Water Buildings and both Emergency Power Generating Buildings.	Inspections of the as-built buried Seismic Category I electrical duct banks will be conducted.	The as-built, buried, Seismic Category I electrical duct banks are located as designed.
2	Seismic Category I buried ESW piping consists of: 1. Large diameter supply and return pipes between the Safeguards Buildings and the ESW Buildings. 2. Small diameter supply and return pipes from the Emergency Power Generating Buildings which tie in directly to the aforementioned pipes.	Inspections of the as-built buried Seismic Category I pipes will be conducted.	The as-built, buried, Seismic Category I pipes are located as designed.
3	Concrete components of buried Seismic Category I electrical duct banks and pipes will be designed in accordance with ACI 349-2001, including the exceptions specified in Regulatory Guide 1.142.	Analysis of the as-designed concrete components of buried Seismic Category I electrical duct banks and pipes will be performed.	The as-designed concrete components of buried Seismic Category I electrical duct banks and pipes conform to ACI 349-2001, including the exceptions specified in Regulatory Guide 1.142.
4	Steel components of buried Seismic Category I electrical duct banks and pipes will be designed in accordance with ANSI/AISC N690-1994 (R2004), including Supplement 2.	Analysis of the as-designed steel components of buried Seismic Category I electrical duct banks and pipes will be performed.	The as-designed steel components of buried Seismic Category I electrical duct banks and pipes conform to ANSI/AISC N690-1994 (R2004), including Supplement 2.
5	The buried Seismic Category I electrical duct banks and pipes can withstand design basis loads without loss of structural integrity. These loads are: 1. Strains imposed by seismic ground motion. 2. Static surface surcharge loads due to vehicular loads on designated haul routes. 3. Static surface surcharge loads during construction activities. 4. Tornado missiles and, within their zone of influence, turbine generated missiles. 5. Ground water effects.	An inspection of the as-built buried Seismic Category I electrical duct banks and pipes will be conducted.	As-built buried Seismic Category I electrical duct banks and pipes conform to the approved design and can withstand the following design basis loads without loss of structural integrity.

Table 2.4-9—{Buried Duct Banks and Pipes Inspections, Tests, Analyses, and Acceptance Criteria}}

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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
6	For the buried, Seismic Category I electrical conduit duct banks, a waterproofing membrane is utilized to eliminate direct contact of ground water chemicals.	An inspection of the as-built structure will be conducted.	For the as-built buried Seismic Category I electrical duct banks, the as-installed waterproofing membrane eliminates direct contact of ground water chemicals.
7	For the concrete components of buried Seismic Category I electrical duct banks and pipes, a low water to cement ratio concrete and improved concrete mixture design will be utilized.	Tests will be conducted to ensure the concrete meets specific parameters.	The concrete utilized to construct the concrete components of as-built buried Seismic Category I electrical duct banks and pipes met the following: a. A maximum water to cementitious materials ratio of 0.45. b. Contains a quantity of supplementary cementitious material appropriate for the exposure condition.
8	Protective measures for buried Seismic Category I pipe include protective waterproof wrapping or coating.	An inspection of the as-installed piping will be conducted.	As-installed Seismic Category I pipes are protected by a protective waterproof wrapping or coating.

Table 2.4-10—{Fire Protection Building Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Fire Protection Building will house the following equipment: a. Diesel Driven Fire Pumps, Drivers, and associated piping, valves, equipment, instruments and controls. b. Diesel Fuel Oil Supply Day Tank and associated piping, valves, equipment, instruments, and controls.	An inspection of the as-built structure will be conducted.	The as-built Fire Protection Building houses the: a. Diesel Driven Fire Pumps, Drivers and associated piping, valves, equipment, instruments and controls. b. Diesel Fuel Oil Supply Day Tank and associated piping, valves, equipment, instruments, and controls.
2	The Fire Protection Building is classified as Seismic Category II-SSE, and can withstand seismic design basis loads without losing its structural integrity.	An inspection of the as-built structure will be conducted.	The as-built Fire Protection Building conforms to the approved design and can withstand seismic design basis loads without loss of structural integrity.
3	For the Fire Protection Building's concrete foundation and walls exposed to ground water, a waterproofing membrane is utilized to eliminate direct contact of ground water chemicals.	An inspection of the as-built structure will be conducted.	For the as-built Fire Protection Building's below grade concrete foundation and walls, the as-installed waterproofing membrane eliminates direct contact of ground water chemicals.
4	For the Fire Protection Building's concrete foundation and walls exposed to ground water, a low water to cement ratio concrete and improved concrete mixture design will be utilized.	Tests will be conducted to ensure the concrete meets specific parameters.	The concrete utilized to construct the as-built Fire Protection Building's below grade concrete foundation and walls met the following: a. A maximum water to cementitious materials ratio of 0.45. b. Contains a quantity of supplementary cementitious material appropriate for the exposure condition.

Table 2.4-11—{Turbine Building Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	a. The Turbine Building is located in a radial position with respect to the Reactor Building, but is independent from the Nuclear b. The Turbine Building is oriented to minimize the effects of any potential turbine generated missiles.	a. An inspection of the as-built structure will be conducted. b. An analysis of the as-built structure's location and orientation will be conducted.	a. The as-built Turbine Building location is in a radial position with respect to the as-built Reactor Building, and is independent from the as-built Nuclear Island. b. The as-built Turbine Building's location and orientation are consistent with the assumptions utilized in the analysis of the potential turbine missiles.
2	The Turbine Building will not impact the ability of any safety-related structure, system, or component to perform its safety function following a seismic event.	An analysis of the as-built structure will be conducted.	A report exists and concludes that under seismic loads the as-built Turbine Building will not impact the ability of any safety-related structure, system or component to perform its safety function.
3	The Turbine Building houses the components of the steam condensate main feedwater cycle, including the turbine-generator.	An inspection of the as-built structure will be conducted.	The as-built Turbine Building houses the components of the steam condensate main feedwater cycle, including the turbine-generator, in accordance with the design.

Table 2.4-12—{Switchgear Building Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Switchgear Building is located adjacent to and contiguous with the Turbine Building.	An inspection of the as-built structure will be conducted.	The as-built Switchgear Building is located adjacent to and contiguous with the as-built Turbine Building.
2	The Switchgear Building will not impact the ability of any safety-related structure, system, or component to perform its safety function following a seismic event.	An analysis of the as-built structure will be conducted.	A report exists and concludes that under seismic loads the as-built Switchgear Building will not impact the ability of any safety-related structure, system or component to perform its safety function.
3	The Switchgear Building contains the power supplies and the instrumentation and controls for the Turbine Island, the balance of plant, and the SBO diesel generators.	An inspection of the as-built structure will be conducted.	The as-built Switchgear Building houses the power supplies and the instrumentation and controls for the Turbine Island, the balance of plant, and the SBO diesel generators, in accordance with the design.
4	The configuration of the Switchgear Building separates each SBO Diesel Generator and its supporting equipment from the other equipment in the Switchgear Building or Turbine Building by barriers, doors, dampers and penetrations as follows: 1. 3-hour fire rated barriers separate the Station Blackout diesel tank rooms from the other adjacent areas. 2. 3-hour fire rated barriers separate the adjacent Turbine Building. 3. 2-hour rated fire barriers separate all other contiguous areas, as well as redundant trains within those areas. 4. Door openings, ventilation system openings, and ductwork penetrations that penetrate 3-hour rated fire barriers will have at least 3-hour fire rated doors or 3-hour fire rated dampers. 5. Door openings, ventilation system openings, and ductwork penetrations that penetrate 2-hour rated fire barriers will have at least 1-½ hour fire rated doors or 1-½ hour fire rated dampers. 6. Penetrations through fire rated walls, floors, and ceilings are sealed or otherwise closed with rated penetration seal assemblies.	a. An analysis will be performed to establish that the fire barriers, doors, dampers, and penetrations have the appropriate fire rating. b. An inspection of the as-built barriers, doors, dampers, and penetrations will be conducted.	a. The fire barriers, doors, dampers, and penetrations that separate each SBO Diesel Generator and its supporting equipment from the other equipment in the as-built Switchgear Building or as-built Turbine Building consist of the following: 1. 3-hour fire rated barriers separate the SBO diesel tank rooms from the other adjacent. 2. 3-hour fire rated barriers separate the adjacent Turbine Building. 3. 2-hour rated fire barriers separate all other contiguous areas, as well as redundant trains within those areas. 4. Door openings, ventilation system openings, and ductwork penetrations that penetrate 3-hour rated fire barriers are at least 3-hour fire rated doors or 3-hour fire rated dampers. 5. Door openings, ventilation system openings, and ductwork penetrations that penetrate 2-hour rated fire barriers are at least 1-½ hour fire rated doors or 1-½ hour fire rated dampers. 6. Penetrations through fire rated walls, floors, and ceilings are sealed or otherwise closed with rated penetration seal assemblies. b. The configuration of fire barriers, doors, dampers, and penetrations that separate each SBO Diesel Generator and its supporting equipment from the other equipment in the as-built Switchgear Building or as-built Turbine Building conforms to the design.

Table 2.4-13—{Warehouse Building Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Warehouse Building will not impact the ability of any safety-related structure, system, or component to perform its safety function following a seismic event.	An analysis of the as-built structure will be conducted.	A report exists and concludes that under seismic loads the as-built Warehouse Building will not impact the ability of any safety-related structure, system or component to perform its safety function.

Table 2.4-14—{Security Access Building Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Security Access Building will not impact the ability of any safety-related structure, system, or component to perform its safety function following a seismic event.	An analysis of the as-built structure will be conducted.	A report exists and concludes that under seismic loads the as-built Security Access Building will not impact the ability of any safety-related structure, system or component to perform its safety function.
2	The Security Access Building controls access to the plant's controlled areas.	An inspection of the as-built structure will be conducted.	The as-built Security Access Building provides access to the plant's controlled areas.

Table 2.4-15—{Central Gas Supply BuildingInspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Central Gas Supply Building will not impact the ability of any safety-related structure, system, or component to perform its safety function following a seismic event.	An analysis of the as-built structure will be conducted.	A report exists and concludes that under seismic loads the as-built Central Gas Supply Building will not impact the ability of any safety-related structure, system or component to perform its safety function.

Table 2.4-16—{Grid Systems Control Building Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Grid Systems Control Building will not impact the ability of any safety-related structure, system, or component to perform its safety function following a seismic event.	An analysis of the as-built structure will be conducted.	A report exists and concludes that under seismic loads the as-built Grid Systems Control Building will not impact the ability of any safety-related structure, system or component to perform its safety function.

Table 2.4-17—{Circulating Water Cooling Tower Structure Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Circulating Water Cooling Tower Structure will not impact the ability of any safety-related structure, system, or component to perform its safety function following a seismic event.	An analysis of the as-built structure will be conducted.	A report exists and concludes that under seismic loads the as-built Circulating Water Cooling Tower Structure will not impact the ability of any safety-related structure, system or component to perform its safety function.

Table 2.4-18—{Circulating Water Pump Building Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Circulating Water Pump Building will not impact the ability of any safety-related structure, system, or component to perform its safety function following a seismic event.	An analysis of the as-built structure will be conducted.	A report exists and concludes that under seismic loads the as-built Circulating Water Pump Building will not impact the ability of any safety-related structure, system or component to perform its safety function.

Table 2.4-19—{Circulating Water Makeup Intake Structure Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Circulating Water Makeup Intake Structure will not impact the ability of any safety-related structure, system, or component to perform its safety function following a seismic event.	An analysis of the as-built structure will be conducted.	A report exists and concludes that under seismic loads the as-built Circulating Water Makeup Intake Structure will not impact the ability of any safety-related structure, system or component to perform its safety function.

Table 2.4-20—{Desalinization / Water Treatment Building Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Desalinization / Water Treatment Building will not impact the ability of any safety-related structure, system, or component to perform its safety function following a seismic event.	An analysis of the as-built structure will be conducted.	A report exists and concludes that under seismic loads the as-built Desalinization / Water Treatment Building will not impact the ability of any safety-related structure, system or component to perform its safety function.

Table 2.4-21—{Ultimate Heat Sink Makeup Water Intake Structure Ventilation System Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	There are four divisions of the UHS Makeup Water Intake Structure Ventilation System.	Inspection of the as-built system shall be conducted.	The as-built UHS Makeup Water Intake Structure Ventilation System has four divisions.
2	Each mechanical division of the UHS Makeup Water Intake Structure Ventilation System shall be physically separated.	Inspections of the as-built system shall be conducted.	Each mechanical division of the as-built UHS Makeup Water Intake Structure Ventilation System is physically separated from other mechanical divisions by structural and/or fire barriers.
3	Each division of the UHS Makeup Water Intake Structure Ventilation System shall be electrically independent.	Inspections of the as-built system shall be conducted.	For the as-built UHS Makeup Water Intake Structure Ventilation System, electrical isolation exists between each division of Class 1E components and between Class 1E components and non-class 1E components.
4	Each division of the UHS Makeup Water Intake Structure Ventilation System is powered by their respective Class 1E division.	Tests are conducted by powering each Class 1E division separately.	Only the Class 1E division under test is powered.
5	The ASME AG-1 UHS Makeup Water Intake Structure Ventilation System equipment is designed and constructed in accordance with ASME AG-1 Code.	An inspection of the as-built system will be conducted.	The as-built ASME AG-1 UHS Makeup Water Intake Structure Ventilation System equipment conforms to the ASME AG-1 Code.
6	UHS Makeup Water Intake Structure Ventilation System equipment, piping, and ducting is designated as Seismic Category I, and can withstand design basis seismic loads without loss of safety function.	a. Type tests, tests, analyses, or a combination of tests and analyses will be performed on the equipment, piping, and ducting. b. Inspections will be conducted of the as-built equipment, piping, and ducting. c. Inspections will be conducted of the as-installed equipment supports and restraints.	a. The equipment, piping, and ducting designated as Seismic Category I for the as-built UHS Makeup Water Intake Structure Ventilation System can withstand design basis seismic loads without lossof safety function. b. The UHS Makeup Water Intake Structure VentilationSystem equipment, piping, andducting designated as SeismicCategory I are installed as designed. c. The as-built equipment supports and restraints are seismically bounded by tested or analyzed conditions.
7	Each division of the UHS Makeup Water Intake Structure Ventilation System will support the operation of its associated electrical division of the UHS Makeup Water System by maintaining a minimum temperature of 41°F (5°) and a maximum temperature of 104°F (40°)	Tests, analyses, or a combination of tests and analyses will be performed.	Each division of the as-built UHS Makeup Water Intake Structure Ventilation System maintains the temperature in its divisions . 41°F (5°) and ≤104 °F (40°)
8	Each division of the UHS Makeup Water Intake Structure Ventilation System is initiated automatically.	Tests of the as-built system will be conducted by supplying a simulated signal to each as-built division.	Each division of the as-built UHS Makeup Water Intake Structure Ventilation System starts uponreceipt of a simulated automatic initiation signal.

Table 2.4-22—{Ultimate Heat Sink Electrical Building Ventilation System Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	There are four divisions of the UHS Electrical Building Ventilation System.	Inspection of the as-built system shall be conducted.	The UHS as-built Electrical Building Ventilation System has four divisions.
2	Each mechanical division of the UHS Electrical Building Ventilation System shall be physically separated.	Inspections of the as-built system shall be conducted.	Each mechanical division of the as-built UHS Electrical Building System is physically separated from other mechanical divisions by structural and/or fire barriers.
3	Each division of the UHS Electrical Building Ventilation System shall be electrically independent.	Inspections of the as-built system shall be conducted.	For the as-built UHS Electrical Building System, electrical isolation exists between each division of Class 1E components and between Class 1E components and non-class 1E components.
4	Each division of the UHS Electrical Building Ventilation System is powered by their respective Class 1E division.	Tests will be performed by powering only one Class 1E division at a time.	Only the Class 1E division under test is powered.
5	The ASME AG-1 UHS Electrical Building Ventilation System equipment is designed and constructed in accordance with ASME AG-1 Code.	An inspection of the as-built equipment will be conducted.	The as-built ASME AG-1 UHS Electrical Building Ventilation System equipment conforms to the ASME AG-1 Code.
6	UHS Electrical Building Ventilation System equipment, piping, and ducting is designated as Seismic Category I, and can withstand a design basis seismic load without loss of safety function.	a. Type tests, tests, analyses, or a combination of tests and analyses will be performed on the equipment, piping, and ducting. b. Inspections will be conducted of the as-built equipment, piping, and ducting. c. Inspections will be conducted of the as-installed equipment supports and restraints.	a. The as-installed UHS Electrical Building Ventilation System equipment, piping, and ducting designated as Seismic Category I in can withstand a design basis seismic load without loss of safety function. b. The UHS Electrical Building Ventilation System equipment, piping, and ducting designated as Seismic Category I are installed as designed. c. The as-installed equipment supports and restraints are seismically bounded by tested or analyzed conditions.
7	Each division of the UHS Electrical Building Ventilation System will support the operation of its associated electrical division of the UHS Makeup Water System by maintaining a minimum temperature of 41ºF (5°) and a maximum temperature of 104ºF (40°).	Tests, analyses, or a combination of tests and analyses will be performed.	Each division of the as-built UHS Electrical Building Ventilation System maintains the temperature in its divisions ≥ 41ºF (5°) and ≤ 104 ºF (40°).
8	Each division of the UHS Electrical Building Ventilation System is initiated automatically.	Tests of the as-built system will be conducted by supplying a simulated signal to each as-built division.	Each division of the as-built UHS Electrical Building Ventilation System starts upon receipt of a simulated automatic initiation signal.

Table 2.4-23—{Fire Protection Building Ventilation System Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Fire Protection Building Ventilation System equipment, piping, and ducting are designated as Seismic Category II-SSE, and can withstand a design basis seismic load without loss of function.	a. Type tests, tests, analyses, or a combination of tests and analyses will be performed on the equipment, piping, and ducting. b. Inspections will be conducted of the as-built equipment. c. Inspections will be conducted of the as-installed equipment supports and restraints.	a. The as-installed Fire Protection Building Ventilation System equipment, piping, and ducting designated as Seismic Category II-SSE can withstand a design basis seismic load without loss of function. b. The as-built Fire Protection Building Ventilation System equipment, piping, and ducting designated as Seismic Category II-SSE are installed as designed. c. The as-built Fire Protection Building Ventilation System supports and restraints are seismically bounded by tested or analyzed conditions.
2	The Fire Protection Building Ventilation System will maintain the environment of the Fire Protection Building within the most limiting equipment qualification requirements for the diesel driven fire pumps, and its supporting equipment.	Tests, analyses, or a combination of tests and analyses will be performed.	The as-built Fire Protection Building Ventilation System maintains the temperature within a range that supports operation of the diesel driven fire pumps, and its supporting equipment
3	Fire Protection Building Ventilation System Inspections, Tests, Analyses, and Acceptance Criteria	A test of the as-built system will be conducted by supplying a simulated signal to the system.	The as-built Fire Protection Building Ventilation System starts upon receipt of a simulated automatic initiation signal.

Table 2.4-24—{Ultimate Heat Sink Makeup Water System Inspections, Tests, Analyses, and Acceptance Criteria}

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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	There are four divisions of the UHS Makeup Water System.	Inspection of the as-built system shall be conducted.	The as-built UHS Makeup Water System has four divisions.
2	Each division of the UHS Makeup Water System is powered by their respective Class 1E division.	Tests will be performed by powering only one Class 1E division at a time.	Only the Class 1E division under test is powered.
3	Each mechanical division of the UHS Makeup Water System shall be physically separated.	Inspections of the as-built system shall be conducted.	Each mechanical division of the as-built UHS Makeup Water System is physically separated from other mechanical divisions by structural and/or fire barriers.
4	Each division of the UHS Makeup Water System shall be electrically independent.	Inspections of the as-built system shall be conducted.	For the as-built UHS Makeup Water, electrical isolation exists between each division of Class 1E components and between Class 1E components and non-class 1E components.
5	The following UHS Makeup Water System equipment is designated as Seismic Category I, and is designed to withstand a design basis seismic load without loss of safety function. UHS Makeup Water Pumps. UHS Makeup Water Pump Motors. Piping to ESW Cooling Towers. Discharge Strainers. Isolation Valves. Isolation Valves for Equipment. Valves in the pathway from the UHS Makeup Water Pumps to the ESW Cooling Towers. Instruments and Controls. Electrical Distribution Equipment.	a. Type tests, tests, analyses, or a combination of tests and analyses will be performed on the equipment. b. Inspections will be conducted of the as-built equipment. c. Inspections will be conducted of the as-installed equipment supports and restraints.	a. The as-installed UHS Makeup Water System equipment designated as Seismic Category I can withstand a design basis seismic load without loss of safety function. b. The UHS Makeup Water System equipment designated as Seismic Category I is installed as designed. c. The as-installed equipment supports and restraints are seismically bounded by tested or analyzed conditions.
6	The UHS Makeup Water System piping and equipment that could impact the capability of Seismic Category I structures, systems, or components to perform its safety function are designated as Seismic Category II, and can withstand seismic design basis loads without impacting the capability of equipment designated as Seismic Category I from performing its safety function.	Inspections will be conducted of the as-built equipment.	The as-built UHS Makeup Water System piping and equipment designated as Seismic Category II is installed as designed.
7	The UHS Makeup Water Intake Structure bar screens and the dual-flow traveling screens are designated as Seismic Category II, and can withstand seismic design basis loads without impacting the capability of equipment designated as Seismic Category I from performing its safety function.	Inspections will be conducted of the as-built equipment.	The as-built bar screens and dual-flow traveling screens are installed as built.
8	The ASME Code Section III components of the UHS Makeup Water System are designed and constructed to ASME Code Section III requirements.	Inspections of the as-built components will be conducted, as documented in the ASME Design Reports.	The ASME Code Section III design reports exist for the as-built ASME Code Section III components of the UHS Makeup Water System.

Table 2.4-24—{Ultimate Heat Sink Makeup Water System Inspections, Tests, Analyses, and Acceptance Criteria}
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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
9	The ASME Code Section III piping of the UHS Makeup Water System is designed and constructed to ASME Code Section III requirements.	Inspections of the as-built piping will be conducted, as documented in the ASME Design Reports.	The ASME Code Section III design reports exist for the as-built ASME Code Section III piping of the UHS Makeup Water System.
10	Pressure boundary welds in ASME Code Section III components of the UHS Makeup Water System are designed and constructed to ASME Code Section III requirements.	Inspections of the as-built pressure boundary welds will be conducted.	A report exists and concludes that the ASME Code Section III requirements are met for non-destructive examination of pressure boundary welds in as-built ASME Code Section III components of the UHS Makeup Water System.
11	Pressure boundary welds in ASME Code Section III piping of the UHS Makeup Water System are designed and constructed to ASME Code Section III requirements.	Inspections of the as-built pressure boundary welds will be conducted.	A report exists and concludes that the ASME Code Section III requirements are met for non-destructive examination of pressure boundary welds in as-built ASME Code Section III piping of the UHS Makeup Water System.
12	The ASME Code Section III components of the UHS Makeup Water System retain their pressure boundary integrity at their design pressure.	Inspections of the as-built components will be conducted.	A report exists and concludes that the results of the hydrostatic test of the ASME Code Section III components of the UHS Makeup Water System conform to the requirements of the ASME Code.
13	The ASME Code Section III piping of the UHS Makeup Water System retain their pressure boundary integrity at their design pressure.	Inspections of the as-built piping as documented will be conducted.	A report exists and concludes that the results of the hydrostatic test of the ASME Code Section III piping of the UHS Makeup Water System conform to the requirements of the ASME Code.
14	The materials utilized in the equipment and piping of the UHS Makeup Water System are compatible with brackish water.	a. An analysis of the materials utilized in the as-installed equipment will be performed. b. An inspection of the as-built piping will be conducted.	a. A report exists and concludes that the materials utilized in the equipment installed in the UHS Makeup Water System that is in contact with the water is compatible with brackish water. b. The as-built piping for the UHS Makeup Water System is composed of either carbon steel SA-106 Grade B with a rubber liner, or ASME SB-675 stainless steel.
15	The UHS Makeup Water Intake Structure bar screens and the dual-flow traveling screens have a large enough face area that potential blockage to the point of preventing the minimum required flow through them is not a concern.	a. Analyses and Inspections will be performed of the as-built equipment.	A report exists and concludes that the face area for the as-built UHS Makeup Water Intake Structure bar screens and the dual-flow traveling screens is sufficient to permit the minimum required flow in the event of worst-case blockage of the screens.
16	The Class 1E valves in the UHS Makeup Water System perform the required function under system design conditions. 1. UHS makeup pump discharge valves open on pump start. 2. Debris filter blowdown line isolation valves will open during the debris filter backwash cycle. 3. The pump min-flow recirculation valve opens in the event the pump discharge valve fails to open.	Tests and analyses or a combination of tests and analyses will be performed to demonstrate the ability of the Class 1E valves to change position under system design conditions.	The as-installed Class 1E valves in the UHS Makeup Water System perform the required function under system conditions.

Table 2.4-24—{Ultimate Heat Sink Makeup Water System Inspections, Tests, Analyses, and Acceptance Criteria}

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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
17	Each division of the UHS Makeup Water System can be initiated manually.	Tests of the as-built system will be conducted.	Each division of the as-built UHS Makeup Water System starts upon receipt of a manual initiation signal.
18	The UHS Makeup Water System provides makeup water in order to maintain the minimum water level in the ESW cooling tower basins.	A test of the as-built system will be conducted.	Each division of the as-built UHS Makeup Water System is capable of delivering ≥ 300 gallons per minute of makeup water to maintain minimum water level in the division's ESW cooling tower basin.
19	The UHS Makeup Water pumps have sufficient NPSH.	Analysis of the as-built system will be performed.	A report exists that establishes that the available NPSH exceeds the NPSH required by the as-installed UHS Makeup Water pumps.
20	The motor-operated valves that isolate the UHS Makeup Water System surveillance test bypass lines close, if open, on receipt of a safety injection actuation signal and a Containment Isolation Phase 1 signal.	Tests of the as-built system will be conducted by supplying a simulated signal to each motor-operated valve.	The as-installed motor-operated valves that isolate the UHS Makeup Water System surveillance test bypass lines close upon receipt of a simulated safety injection actuation signal and a Containment Isolation Phase 1 signal.
21	Each division's UHS Makeup Water pump discharge check valve opens when the division's UHS Makeup Water pump is energized and flow is established, and shuts when the division's UHS Makeup Water pump is de-energized.	Tests of the as-built system will be conducted.	The as-installed UHS Makeup Water pump discharge check valve in each division performs the required function.
22	Each division of the UHS Makeup Water System has a surveillance test bypass line that allows flow testing of the system during plant operation.	Tests of the as-built system will be conducted.	The as-built surveillance test bypass line for each division the UHS Makeup Water System allows flow testing of the system during plant operation.

Table 2.4-25—{Raw Water Supply System Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Raw Water Supply System delivers makeup water to the Fire Water Distribution System's fire water storage tanks in accordance with the requirement contained within NFPA code 804 (i.e., capable of delivering at least 300,000 gallons within an 8-hour period).	A test of the as-built system will be performed.	The as-built Raw Water Supply System delivers a total flow rate of ≥ 625 gallons per minute to the as-built fire water storage tanks.

Table 2.4-26—{Fire Water Distribution System Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysisign	Acceptance Criteria
1	The fire protection storage tanks will be in close proximity to the fire protection building.	An inspection of the as-built location of the tanks will be conducted.	The as-built fire protection storage tanks are located within 50 ft of the as-built Fire Protection Building, as measured from the closest outside surfaces of the structures.
2	The following Fire Water Distribution System equipment and piping are designated as Seismic Category II-SSE, and can withstand seismic design basis loads without losing the capability to perform its function. 1. Fire Water Storage Tanks. 2. Diesel Driven Pumps and Drivers. 3. Fire Water Distribution System piping, valves, and hydrants that support equipment required to perform during a Safe Shutdown Earthquake. 4. Fuel Oil Supply for Diesel Driven Pumps, and associated piping, and equipment.	a. Type tests, tests, analyses, or a combination of tests and analyses will be performed on the equipment and piping. b. Inspections will be conducted of the as-built equipment. c. Inspections will be conducted on the as-installed equipment supports and restraints.	a. The as-installed Fire Water Distribution System equipment and piping designated as Seismic Category II-SSE can withstand a design basis seismic load without loss of its ability to perform its function. b. The Fire Water Distribution System equipment and piping designated as Seismic Category II-SSE are installed as designed. c. The as-installed equipment supports and restraints are seismically bounded by tested or analyzed conditions.
3	Fire Water Distribution System equipment and piping that could impact the capability of Seismic Category 1 Structures to perform its safety function are designated as Seismic Category II, and can withstand design basis seismic loads without impacting the capability of equipment designated as Seismic Category 1 from performing its safety function.	a. Type tests, tests, analysis, or a combination of tests and analyses will be performed. b. Inspections will be conducted of the as-built equipment.	a. A report exists and concludes that the Fire Water Distribution System equipment and piping that are designated as Seismic Category II can withstand design basis seismic loads without impacting the capability of equipment designated as Seismic Category I from performing its safety function. b. Fire Water Distribution System equipment and piping that are designated as Seismic Category I are installed as designed.
4	The Fire Water Distribution System utilizing the diesel driven fire pumps can be initiated manually.	Tests of the as-built system will be conducted.	Fire Water Distribution System utilizing the diesel driven fire pumps starts upon receipt of a manual initiation signal.
5	Buried Fire Protection piping to Seismic Category I structures that does not support equipment required to perform during a Safe Shutdown Earthquake is designated as Seismic Category II, and can withstand a design basis seismic event without losing the integrity of its pressure boundary.	a. Type tests, tests, analyses, or a combination of tests and analyses will be performed. b. Inspections will be conducted of the buried Fire Protection piping to Seismic Category I structures.	a. The as-built buried Fire Protection piping to Seismic Category I structures that does not support equipment required to perform during a Safe Shutdown Earthquake can withstand a design basis seismic event without losing the integrity of its pressure boundary. b. The buried Fire Protection piping to Seismic Category I structures that does not support equipment required to perform during a Safe Shutdown Earthquake are installed as designed.

Table 2.4-27—{Fire Suppression Systems Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Fire Suppression System components for the UHS Makeup Water Intake Structure are designated as Seismic Category II, and can withstand seismic design basis loads without impacting the capability of equipment designated as Seismic Category I from performing its safety function.	a. Type tests, tests, analyses, or a combination of tests and analyses will be performed. b. Inspections will be conducted of the as-built equipment.	a. A report exists and concludes that the Fire Suppression System components for the UHS Makeup Water Intake Structure designated as Seismic Category II can withstand a design basis seismic load without impacting the capability of equipment designated as Seismic Category I from performing its safety function. b. The Fire Suppression System components for the UHS Makeup Water Intake Structure designated as Seismic Category II are installed as designed.
2	The Fire Suppression System components for the UHS Electrical Building are designated as Seismic Category II and can withstand a design basis seismic load without impacting the capability of equipment designated as Seismic Category I from performing its safety function.	a. Type tests, tests, analyses, or a combination of tests and analyses will be performed. b. Inspections will be conducted of the as-built equipment.	a. A report exists and concludes that the Fire Suppression System components for the UHS Electrical Building designated as Seismic Category II can withstand a design basis seismic load without impacting the capability of equipment designated as Seismic Category I from performing its safety function. b. The Fire Suppression System components for the UHS Electrical Building designated as Seismic Category II are installed as designed.
3	The Fire Suppression System components for the Fire Protection Building are designated as Seismic Category II, and can withstand a design basis seismic load without impacting the capability of equipment designated as Seismic Category II-SSE from performing its safety function.	a. Type tests, tests, analyses, or a combination of tests and analyses will be performed. b. Inspections will be conducted of the as-built equipment.	a. A report exists and concludes that the Fire Suppression System components for the Fire Protection Building designated as Seismic Category II can withstand a design basis seismic load without impacting the capability of equipment designated as Seismic Category II-SSE from performing its function. b. The Fire Suppression System components for the Fire Protection Building designated as Seismic Category II in are installed as designed.

Table 2.4-28—{New and Spent Fuel Storage Racks Inspections, Tests, Analyses, and Acceptance Criteria}

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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The new and spent fuel storage racks are located in the Fuel Building.	An inspection of the as-built structure and components will be conducted.	The as-built new and spent fuel storage racks are located in the as-built Fuel Building.
2	The new and spent fuel storage racks are identified as Seismic Category I.	a. Inspections will be conducted of the as-built equipment. b. Type tests, tests, analyses, or a combination of tests and analyses will be performed on the equipment. c. Inspections will be conducted on the as-installed equipment supports and restraints.	a. The as-built new and spent fuel storage racks are installed as designed. b. The new and spent fuel storage racks can withstand a design basis seismic load without loss of safety function. c. The as-installed equipment supports and restraints are seismically bounded by tested or analyzed conditions.
3	The new and spent fuel storage racks have been designed to meet the stress limits of, and be analyzed in accordance with ASME Code Section III, Division 1, Subsection NF.	Analysis of the as-built new and spent fuel storage racks will be conducted.	A report exists and concludes that the as-built new and spent fuel racks meet the stress limits of ASME Code Section III, Division 1, Subsection NF.
4	All applicable structural welds will be performed using procedures developed and qualified in accordance with Section IX of the ASME Code	Inspections of the as-installed structural welds will be performed.	The as-installed structural welds for the new and spent fuel pool racks meet the requirements of Section IX of the ASME Code.
5	Materials for the new and spent fuel storage racks shall satisfy their intended safety functional requirements with regards to fuel subcriticality.	An inspection of the as-built new and spent fuel rack structural materials will be conducted.	a. The neutron absorber materials for the as-built new and spent fuel racks are consistent with the materials assumed in the subcriticality analysis. b. The neutron absorber material is installed as assumed in the subcriticality analysis. c. The thickness of the neutron absorber material in the Storage Cells is between 0.102 and 0.111 inches.
6	The spent fuel rack materials will be compatible with the environment in the spent fuel pool.	An analysis of the as-built spent fuel rack structural materials will be conducted.	The materials for the as-built spent fuel racks are compatible with the environment in the spent fuel pool

Table 2.4-28—{New and Spent Fuel Storage Racks Inspections, Tests, Analyses, and Acceptance Criteria}

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	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
7	The spent fuel rack structural materials must be corrosion-resistant and compatible with the expected water chemistry of the spent fuel pool.	An analysis of the as-built spent fuel rack structural materials will be conducted.	The structural materials of the as-built spent fuel racks are corrosion-resistant and compatible with the expected water chemistry of the spent fuel pool.
8	The following parameters are significant assumptions in the criticality analysis for the spent fuel racks: 1. Center-to-Center Spacing for Region 1 Cells = 10.9 ± 0.04 inches 2. Center-to-Center Spacing for Region 2 Cells = 9.028 ± 0.04 inches 3. Region 1 Storage Racks, each with a 9 X 10 matrix of Storage Cells for a total of 360 Storage Cells. 4. Region II Storage Racks, each with a 10 X 10 matrix of Storage Cells for a total of 1000 Storage Cells.	An inspection of the as-installed spent fuel racks will be conducted.	The as-built spent fuel racks meet the following: 1. Center-to-Center Spacing for Region 1 Storage Cells = 10.9 ± 0.04 inches 2. Center-to-Center Spacing for Region 2 Storage Cells = 9.028 ± 0.04 inches 3. Region 1 Storage Racks, each with a 9 X 10 matrix of Storage Cells for a total of 360 Storage Cells. 4. Region II Storage Racks, each with a 10 X 10 matrix of Storage Cells for a total of 1000 Storage Cells.
10	The following parameters are significant assumptions in the criticality analysis for the new fuel racks: 1. Center-to-Center Spacing for the Storage Cells = 10.9 ± 0.04 inches 2. Storage Racks, each with a 7x8 matrix of Storage Cells for a total of 144 Storage Cells.	An inspection of the as-installed new fuel racks will be conducted.	The as-built new fuel racks meet the following: 1. Center-to-Center Spacing for the Storage Cells = 10.9 ± 0.04 inches 2. Storage Racks, each with a 7x8 matrix of Storage Cells for a total of 144 Storage Cells.

Table 2.4-29—{Offsite Power System Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Offsite Power System supplies at least two preferred power circuits, which will be physically independent and separate.	a. Inspections of the as-built system will be conducted. b. Tests of the as-built system will be conducted by powering only one offsite power circuit / system at a time.	a.1. The as-built Offsite Power System has at least two preferred power circuits. a.2. The as-built preferred power circuits from the switchyard to the emergency and auxiliary transformers are separated by a minimum distance of 50 feet. a.3. The as-built offsite transmission lines do not have a common takeoff structure or use a common structure for support. b. Only the circuit under test is powered.
2	Each offsite power circuit shall be sized to supply the station safety-related and non-safety-related loads during normal and off normal operation. The Emergency Auxiliary Transformers and Normal Auxiliary Transformers shall be sized to supply their load requirements.	Analyses of as-built station safety-related and non-safety-related loads will be performed to determine their load requirements during normal and off normal operation.	Each as-built offsite power circuit from the transmission network through the main step-up transformer and including the Emergency Auxiliary Transformers and Normal Auxiliary Transformers is sized to meet the load requirements during normal and off normal operation.
3	Each Emergency Auxiliary Transformer shall be connected to the Switchyard via an independent circuit, sized to supply the four Emergency Power Supply System divisions.	An inspection of the as-built system will be conducted.	Each as-installed Emergency Auxiliary Transformer is connected to the as-built Switchyard via an independent circuit, sized to supply the four Emergency Power Supply divisions.
4	The AC power sources may be manually transferred from the normal offsite circuit to the alternate offsite circuit.	Tests of the as-built system will be conducted.	The as-built AC power sources can be manually transferred from the normal offsite circuit to the alternate offsite circuit.
5	The AC power sources may be automatically transferred from the normal offsite circuit to the alternate offsite circuit.	Tests of the as-built system will be conducted.	The as-built AC power sources can be automatically transferred from the normal offsite circuit to the alternate offsite circuit.

Table 2.4-30—{{Power Generation System Inspections, Tests, Analyses, and Acceptance Criteria}

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Generator Switchyard circuit breakers shall be sized to supply the load requirements.	An analysis will be performed to determine the as-built loading for the Generator Switchyard circuit breakers	The as-installed Generator Switchyard circuit breakers are rated for a load greater than the analyzed load.

Table 2.4-31—{Class 1E Emergency Power Supply Components for Site-Specific Systems Inspections, Tests, Analyses, and Acceptance Criteria}

(Page 1 of 2)

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
1	The Class 1E electrical distribution equipment is qualified as Seismic Category I, and can withstand seismic design basis loads without loss of safety function, for the following systems: 1. UHS Makeup Water System. 2. UHS Makeup Water Intake Structure Ventilation System. 3. UHS Electrical Building Ventilation System.	a. Type testing, analysis, or a combination of type testing and analysis will be performed. b. An inspection of the as-installed equipment will be conducted. c. An inspection of the as-installed equipment supports and restraints will be performed.	a. The Class 1E electrical distribution equipment for the as-built UHS Makeup Water System, UHS Makeup Water Intake Ventilation System, and UHS Electrical Building Ventilation System can withstand a design basis seismic load without loss of safety function. b. The Class 1E electrical distribution equipment for the as-built UHS Makeup Water System, UHS Makeup Water Intake Ventilation System, and UHS Electrical Building Ventilation System is installed as designed. c. The as-built equipment supports and restraints for the Class 1E electrical distribution equipment for the as-built UHS Makeup Water System, UHS Makeup Water Intake Ventilation System, and UHS Electrical Building Ventilation System are installed as design.

Table 2.4-31—{Class 1E Emergency Power Supply Components for Site-Specific Systems Inspections, Tests, Analyses, and Acceptance Criteria}

(Page 2 of 2)

	Commitment Wording	Inspection, Test, or Analysis	Acceptance Criteria
2	Displays for the following Class 1E equipment are retrievable in the main control room: 1. UHS Makeup Water System (makeup water pumps, pump discharge valves, pump min-flow recirculation valves, pump test bypass line isolation valves, and debris filter blowdown line isolation valves). 2. UHS Makeup Water Intake Structure Ventilation System (ventilation fans). 3. UHS Electrical Building Ventilation System (ventilation fans)..	An inspection of the as-built main control room will be conducted.	The displays for the following Class 1E equipment exist in the as-built main control room 1. UHS Makeup Water System (makeup water pumps, pump discharge valves, pump min-flow recirculation valves, pump test bypass line isolation valves, and debris filter blowdown line isolation valves). 2. UHS Makeup Water Intake Structure Ventilation System (ventilation fans). 3. UHS Electrical Building Ventilation System (ventilation fans).
3	Controls for the following Class 1E equipment exist in the main control room: 1. UHS Makeup Water System (makeup water pumps, pump discharge valves, pump min-flow recirculation valves, pump test bypass line isolation valves, and debris filter blowdown line isolation valves). 2. .UHS Makeup Water Intake Structure Ventilation System (ventilation fans). 3. UHS Electrical Building Ventilation System (ventilation fans).	An inspection of the as-built main control room will be conducted.	The controls for the following Class 1E equipment exist in the as-built main control room: 1. UHS Makeup Water System (makeup water pumps, pump discharge valves, pump min-flow recirculation valves, pump test bypass line isolation valves, and debris filter blowdown line isolation valves). 2. UHS Makeup Water Intake Structure Ventilation System (ventilation fans). 3. UHS Electrical Building Ventilation System (ventilation fans).
4	Class 1E switchgear, load centers, motor control centers, and transformers and their feeder breakers and load breakers are sized to supply their load requirements, for the following systems: 1. UHS Makeup Water System 2. UHS Makeup Water Intake Structure Ventilation System 3. UHS Electrical Building Ventilation System.	Analysis and inspections will be conducted of the as-installed equipment.	A report exists that establishes that the ratings for the as-installed Class 1E switchgear, load centers, motor control centers, and transformers and their feeder breakers and load breakers are greater than their load requirements, for the following systems: 1. UHS Makeup Water 2. UHS Makeup Water Intake Structure Ventilation System 3. UHS Electrical Building Ventilation System .